## AD-A245 858



# NAVAL POSTGRADUATE SCHOOL Monterey, California





### **THESIS**

CONCEPTUAL DATA MODEL FOR ADMINISTRATIVE FUNCTIONS OF A TYPICAL NAVAL SHIP, TO INCLUDE: DRUG AND ALCOHOL PROGRAM ADVISOR, WATCH QUARTER AND STATION BILL, SAFETY, MEDICAL, AND SECURITY

by

Daniel J. Montgomery

September, 1991

Thesis Advisor:

Magdi N. Kamel

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Conceptual Data Model for Administrative Functions of a Typical Naval Ship, to include: Drug and Alcohol Program Advisor,

Watch Quarter and Station Bill, Safety, Medical, and Security

by

Daniel J. Montgomery
Lieutenant Commander, United States Navy
B.A., Ottawa University

Submitted in partial fulfillment of the requirements for the degree of

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from the

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Author:

Daniel J. Montgomery

Approved by:

Magdi N. Kamel, Thesis Advisor

Kishore Sengupta, Second Reader

Prof. David R. Whipple, Chairman

Department of Administrative Sciences

#### ABSTRACT

Data management standardization has been identified by the Office of the Secretary of Defense as a method to achieve savings in the \$9 billion spent annually on information technology in DoD and to promote interoperability and information exchange among systems. Most efforts have been directed at standardizing data elements, the lowest level in the hierarchy of data, as a foundation for standardizing Management Information Systems within DoD. In this thesis, we propose extending the standardization effort to the schema level of an organizational unit. We examine the administrative functions carried out onboard a generic Navy ship and develop a data model (view) for each function. The administrative functions addressed in this thesis are Drug and Alcohol Program Advisor, Watch, Quarter and Station Bill, Safety, Medical and Security. The separate views are integrated to form a global, high-level conceptual data model. This complex view is then simplified by creating higher levels of abstraction using an entity clustering technique.



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#### I. INTRODUCTION

#### A. BACKGROUND

The Office of the Secretary of Defense (OSD) has recognized the need to reduce an estimated \$9 billion spent annually on collecting and processing data into usable forms of mission essential information. To realize savings in the money spent on information technology, DoD Corporate Information Management (CIM) was established in October 1989 in order to "enhance the availability and the standardization of information in common areas and to provide for the development of integrated Management Information Systems." [Ref. 1]

Standardization allows for sharing of data between functional units and greater integration and interoperability between databases thus enhancing the effort of managing information. Additionally, standardization facilitates the accomplishment of the following goals: [Ref. 1]

- 1. Consolidating multiple systems that meet the same functional requirements.
- 2. Reducing unnecessary redundancy.
- 3. Developing common data requirements and formats to enhance interoperability.
- 4. Reducing the amount of annual expenditures associated with information technology.

To illustrate the importance of standardization, consider a possible Navy mission: the search and rescue of a disabled ship at sea. The disabled vessel's last known position is provided to a designated Scene of Action Commander (SAC) either from shore or from another ship (civilian or military).

Patrol aircraft or ships are designated and, provided with a description and general location of the vessel, are dispatched to conduct the search and rescue. Aircraft and ships working together exchange data about search patterns, weather conditions, geographic positions and rescue procedures to coordinate their efforts and minimize time. When the disabled vessel is located, ship position, material and personnel condition and other amplifying data are exchanged between search units and the commander. Without standard conventions for terminology, tactics or operations, the different units would have to expend much more time and effort to accomplish the same amount of data exchange in order to accomplish their mission.

Regardless of a unit's operational mission, there are several administrative functions that must be accomplished in order to meet other recurring requirements. To illustrate this point, consider the required monthly reports submitted by Navy units to superiors within their respective "chain of command." The reports from different units contain the same data but may vary in format, depending on where the report is sent. In some cases data elements are not standardized between reports. A typical example is a data element concerning "name" (e.g., individual, dependent) which can be stored in one of many different formats (first, middle, last or last, first, middle). This lack of standardization requires separate record maintenance and report preparation. In some cases, separate reports, containing the same data but in different formats,

must be generated to satisfy reporting requirements. Such a situation often gives rise to redundant record keeping and the inherent problems of control, integrity and accuracy of data. The standardization concept becomes more important when applied to afloat units (ships, staffs, air squadrons) that must interface with several different shore organizations, whether military (DoD), federal (e.g., USCG, FAA, DEA) or civilian (e.g., emergency services, port services).

Most efforts thus far have been directed at standardizing data elements, the lowest level in the hierarchy of data, as a foundation for standardizing Management Information Systems within DoD. An automated Data Dictionary System (DDS) was developed by the Army to provide on line access to all data elements created using the published data element naming standards. [Ref. 2]

While the standardization of data elements is an important step in promoting data exchange and facilitating data integration and interoperability, a higher level of standardization, at the schema level, is needed to better accomplish these goals. Since the organizational structure and functions of common areas (e.g., administration) within the organizational units of each service are very similar, schema level standard--ization is particularly appealing.

Consider, for example, the administrative functions and organization of a Navy unit. Regardless of size or operational mission, the administrative organization and functions of

Navy units are essentially the same as required by the STANDARD ORGANIZATION AND REGULATIONS MANUAL OF THE U.S. NAVY (OPNAVINST 3120.32). Consequently, the data requirements to support these functions are common. Larger units have more functions and greater composition at the various levels of the organization structure (e.g., the number and designation of work groups). For example, a combatant ship might have four departments (Operations, Weapons, Engineering and Supply) while an aircraft carrier has several more departments (e.g., Air, Deck, Medical, Legal, Repair, etc.).

By standardizing data at the schema level, Navy units could easily exchange data (e.g., personnel, material, technical) between their onboard databases and external databases from other facilities. Personnel transfers, transfer of technical and material data between units (ship-ship, ship-shore), and updates to unit databases (e.g., technical info, supply) could be accomplished with a significant improvement in timeliness, data accuracy and integrity.

#### B. OBJECTIVE and SCOPE

This thesis develops a high level conceptual data model of a subset of the administrative functions common to a typical naval ship. The functions investigated in this thesis include DRUG/ALCOHOL PROGRAM ADVISOR (DAPA), WATCH, QUARTER AND STATION BILL (WQSB), MEDICAL, SAFETY and SECURITY. The data required to perform each function is captured in an Entity Relationship Diagram. These diagrams include the entities,

attributes, relationships and constraints required to perform each function. This method results in standardizing the data elements, which is clearly an important step in standardizing Management Information Systems within DoD. Standard data elements are used in developing the Entity Relationship Diagrams. These diagrams are then combined into a single, nonredundant, global schema that represents the global data required for these functions.

#### C. METHODOLOGY

To accomplish our objective of developing a high level conceptual data model of the specified functions, we use the following four step approach. For each function we:

- 1. Determine and analyze data user requirements, data items and data flows.
- 2. Develop a conceptual model to describe entities, data items, relationships, and constraints.
- 3. Compile a data dictionary that defines and describes all data items.
- 4. Integrate the resulting subschemas into a single, non-redundant schema.

#### D. ORGANIZATION

This thesis is organized as follows. Chapter II describes the standard shipboard organization and discusses the administrative functions to be examined in this study. Chapter III describes the data modeling approach and construction of the Entity Relationship Model used as the high level conceptual data model. Chapter IV applies the data modeling approach to construct a conceptual design of the shipboard administrative

functions previously described in Chapter II. Chapter V discusses the integration of these administrative functions by combining separate views of those functions into a single, nonredundant, global schema. Finally, Chapter VI summarizes our experience using the methodology and reviews conclusions and lessons learned during the course of this study.

#### II. STANDARD SHIP ORGANIZATION AND FUNCTIONS

#### A. SHIP ORGANIZATION

The requirement for conducting wartime missions is the basis for the standard organization of naval ships. In order to meet the requirements of an operational environment, a ship is organized along functional lines. This organization consists of functional departments which are divided into divisions, which are further sub-divided into work centers. The number of departments within a ship varies with ship type. For example, a large ship such as an aircraft carrier has many more departments than a smaller combatant such as a destroyer. However, regardless of ship type and number of departments, the organizational structure is basically very similar.

The organization of a Navy ship has two aspects. First, the static aspect deals with organization structure and can be illustrated in the form of organization charts and diagrams. Figure 1 illustrates a typical shipboard organization chart. The second, more dynamic aspect deals with the human element of the organization. The authority and responsibility for people assigned to various positions within a unit organization are described below and illustrated in Figure 2.

#### 1. Commanding Officer

The Commanding Officer is charged with absolute responsibility for the safety, well-being and efficiency of his/her command. The duties and responsibilities of the Commanding Officer are established by U.S. Navy Regulations,

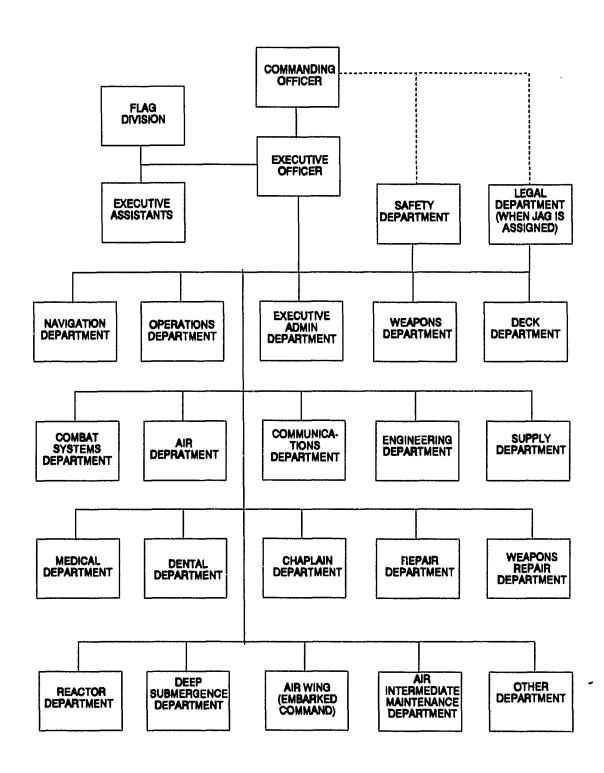


Figure 1: Standard Shipboard Organization

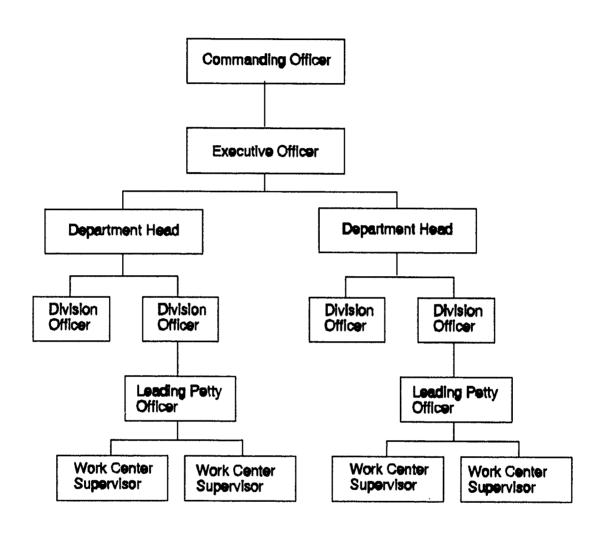


Figure 2: Departmental Organization

general orders, customs and tradition.

#### 2. Executive Officer

The Executive Officer is the direct representative of the Commanding Officer and is primarily responsible, under the Commanding Officer, for the organization, performance of duty and good order and discipline of the entire command.

Assistants may be assigned to the Executive Officer to aid in the accomplishment of specific command administrative functions (i.e., Legal, Safety, Security, Training, Public Affairs, etc.). Executive assistant duties may be primary or collateral. When performing duties on a collateral basis, officers and petty officers acting as assistants to the Executive Officer report directly to the Executive Officer, regardless of their primary departmental or division assignments in the organization. Figure 3 illustrates the executive assistants examined in this thesis and an associated thesis done by Lt. Teresa N. Briede. [Ref. 3]

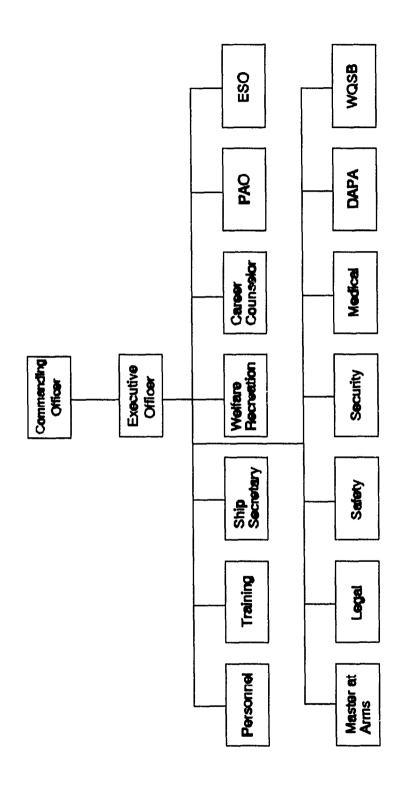


Figure 3: Executive Assistants

#### 3. Head of Department

The Department Head is the representative of the Commanding Officer in matters pertaining to his/her assigned department, reporting directly to the Commanding Officer concerning departmental matters whenever such action is necessary. The Commanding Officer and, as appropriate, the Executive Officer, will be informed of the material and operational readiness of assigned equipment and shipboard spaces, status of equipment repairs, crew training, and personnel and material needs of the department. An officer may head more than one department on smaller ships.

Assistants required for the proper performance of department functions may be assigned to each department concerned. Specific functions may include Administration, Supply, Training and Maintenance.

The Department Head reports to the Executive Officer for all administrative matters and advises the Executive Officer of reports to the Commanding Officer. Immediate subcrdinates assigned to the Department Head report directly to him/her.

Within a given department there may be more than one division. For example, within the Combat Systems department there may be separate divisions for sonar, gunnery, missiles and electronic repair.

#### 4. Division Officer

A Division Officer is assigned by the Commanding Officer to lead a division within a department of the unit's organization. He/she is responsible, under the Department Head, for the operational and maintenance duties assigned to the division as well as the training, conduct and welfare of personnel assigned to the division, following regulations and orders of the Commanding Officer and other superiors. The Division Officer must stay informed of the capabilities and needs of each subordinate, and within his/her authority, take actions to maintain the efficiency of the division and welfare and morale of subordinates.

The Division Officer reports to the Department Head regarding the performance of his/her assigned duties. Within a division, the following personnel report to the Division Officer:

- The junior division officer (when assigned) regarding assigned duties.
  - Technical or material assistants (when assigned).
- The leading chief petty officer (LCPO) or leading petty officer (LPO), for the daily operations of the division.

#### 5. Leading (Chief) Petty Officer (LCPO/LPO)

The senior chief petty officer or petty officer within a division is normally assigned duties of Leading (Chief) Petty Officer (LCPO/LPO). He/she assists the Division Officer in the administration, supervision and training of division

personnel. The division LCPO/LPO reports to the division officer (or junior division officer when assigned). A division may have more than one work center. For example, within the Sonar division of the Combat Systems department, there may be a work center for each sonar system, the torpedo weapon system and other weapon systems as necessary.

#### 6. Work Center Supervisor (WCS)

The work center supervisor is normally the senior petty officer in charge of a specific operational or maintenance group within a division and will be responsible to the Department Head, via the Division Officer and LPO, for Material, Maintenance and Management (3-M) system operation and training within the work center. The work center supervisor reports to the division LPO and the department 3-M assistant. All personnel assigned to the work center report to the work center supervisor.

#### B. DATA REQUIREMENTS AND DATA FLOW

There are two types of data requirements within the ship's organization: operational data such as ship schedules and exercises, and administrative data requirements necessary for the daily functions of the ship, such as safety, personnel and training programs. In addition to the types of data required for the ship, the flow of data/information within a ship can be characterized in two ways: intra- and inter-departmental. Intra-departmental data flow is contained within the structured departmental boundaries previously described. For

example, information about the repair status of a piece of equirment in a given work center would move from the individual repairman through the work center supervisor to the Division Officer, via the division LPO, and continue through the Department Head to the Commanding Officer. This information path is referred to as "THE CHAIN OF COMMAND" and is bidirectional (top-bottom / bottom-top). This pattern can be characterized by a single source and several receivers of a given data item.

The second, and less structured, flow path is the interdepartmental data flow. In this scheme several sources provide
data to a relatively few number of receivers. The data flows
across several departmental boundaries at all levels within
the unit. This multi-directional pattern is the least tangible
but most often used data flow pattern in a unit. As an
example, if a medical activity issues pain medication to a
member (e.g., following oral surgery), the Medical department
flags the member's record to identify that he is taking
inhibiting medication; the Security Officer may have to
temporarily suspend that member's participation in the ship's
Security Force; and the Safety Officer will take steps to
ensure that the member is not assigned duties or operating 
machinery that may create a hazardous condition.

Administrative data is the kind of inter-departmental data we are most interested in modeling as it is the most commonly shared data within the organization. Input and

utilization of this data by users from different departments would be significantly improved if the data elements could be identified and modeled for use in a database (central repository) onboard the ship. A central database would facilitate improved security and integrity of the data and provide for more timely and accurate information available to multiple users simultaneously. A shipboard database could be updated by internal as well as external sources (e.g., Manpower documents, technical data, etc.).

We examined the administrative data requirements onboard a typical Navy ship and identified the data maintained by the Executive Officer's assistants for various administrative functions to contain the majority of the data that we want to model.

#### C. ADMINISTRATIVE FUNCTIONS

Administrative data requirements are common to every position in the organization, regardless of department. The data can be categorized by function in a manner similar to the operational structure of the ship. In order to accommodate the efficient execution of these administrative functions, the Executive Officer assigns several administrative assistants to perform them. These administrative assistants may be either officers or enlisted personnel. Administrative duties may be collateral duties in addition to a member's primary function onboard the ship. For example, the Operations Officer may be assigned collateral duties such as Senior Watch Officer and

Training Officer. Other administrative duties, such as the medical representative in a small ship without a Medical department, are assigned as primary duties to a member of the crew. All department heads and executive assistants report directly to the Executive Officer with regard to administrative matters.

This study focuses on the following administrative functions common to any Naval ship, regardless of class: DRUG/ALCOHOL PROGRAM ADVISOR, WATCH, QUARTER AND STATION BILL, MEDICAL, SAFETY and SECURITY.

#### 1. DRUG/ALCOHOL PROGRAM ADVISOR (DAPA)

The Drug and Alcohol Program Advisor (DAPA) function controls data pertaining to individual consultations (screenings) regarding substance abuse and chronic obesity. The DAPA also maintains information concerning referrals of members by the DAPA to other professional counseling centers for evaluation and/or assignment to rehabilitation programs.

#### 2. WATCH, QUARTER AND STATION BILL (WQSB)

The Watch, Quarter and Station Bill (WQSB) function consolidates watch station assignments for every member of the crew. The WQSB lists, by billet number, the member's assigned inport and underway watch stations and associated duties as specified in various ship's operational, administrative, emergency and/or special bills. This function maintains data from all pertinent instructions, plans, notices or bills that specify personnel or manning requirements that affect any

shipboard department. For example, the Special Sea and Anchor Detail is promulgated as a ship instruction that specifies which stations are to be manned and the department responsible for providing personnel to man those stations. The responsible departments list members, by billet number, to fill those stations in the WQGB. Assignments for every crew member for all conditions (e.c., Condition I: General Quarters, Condition IV: peacetime/inpc.t) and special at sea and inport details (e.g., underway replenishment, towing, anchor, rescue and assistance) are included in the WQSB.

#### 3. SAFETY

The Safety function tracks data related to the various on-duty and off-duty safety programs throughout the ship. This function maintains data pertinent to the occupational safety of the service member while on duty. Areas of concern to the Safety Officer include: (1) Administering the Heat Stress Monitoring Program to ensure that no one suffers heat related injuries; (2) Maintaining noise survey data for selected spaces and compartments onboard the ship as part of the Hearing Conservation program; (3) Conducting investigations to document and evaluate data concerning accidents or incidents creating personnel hazards onboard the ship; (4) Supervising the identification and controlled use/storage of hazardous material items on the ship; (5) Supervising electrical safety checks on personal, habitability and division related electrical devices to ensure no personnel shock hazards exist; (6)

Monitoring the Equipment Tag-out program, which deals with information concerning the CAUTION and DANGER tags used by personnel to secure or otherwise operate specified equipment in a safe manner to accomplish maintenance, repairs, etc.; (7) Documenting tests done by the Gas-Free engineers to certify safe entry into spaces or compartments or to conduct hot work (welding, brazing, etc.) safely; (8) Investigating hazards in the ship or deficiencies in the shipboard safety program either reported by members of the crew or identified by safety survey /inspection teams; (9) Supervising the medical surveillance program which records and monitors personnel exposures to hazards such as asbestos, lead, radiation, etc.; (10) Administering motor vehicle safety courses attended by members of the crew; (11) Monitoring the training courses pertaining to athletic, home and recreational safety as required by higher authority; (12) Monitoring radiation surveys conducted onboard the ship to identify and evaluate the types and amounts of radiation that might be received by the crew; (13) Tracking respiratory equipment issued to members of the crew; and (14) Monitoring sight hazard surveys conducted on the ship to identify, monitor and protect against sources of personnel sight hazards such as lasers and machinery.

#### 4. MEDICAL

This function deals with several aspects of the ship's medical program as well as medical support to the crew. The Medical function maintains data regarding injuries that may

occur to a crew member, the medical status of a member to perform assigned duties, and the issue of medicinals and immunizations given to members. Also, this function deals with data pertaining to physical exams, lab tests, sight and hearing exams, dental exams and a member's dental readiness classification. Additionally, this function maintains data concerning medical surveillance for exposure to radiation and other personnel hazards, as well as a member's attendance at sickcall and/or other medical service consultations as necessary.

#### 5. SECURITY

This function maintains data on several aspects of shipboard security. The Security function is utilized to track the granting of security clearances and authorizing access to classified materials by individual members of the crew. This function also maintains data regarding the selection and screening of members into the ship's security force and, if necessary, the Personnel Reliability Program (PRP). Another area of concern is the identification and control of access to the ship by visitors, including visitors from foreign nations. Additionally, this function maintains data concerning the accounting and control (e.g., receipt, distribution, inventory, storage, reproduction and disposition) of classified material onboard the ship. The Physical Security program deals with the controlled access to selected compartments and equipments (e.g., key/lock inventories, equipment issue lists)

on the ship. Also, Automated Data Processing (ADP) Systems security maintains data concerned with the physical and material security of Information Systems (IS) equipment (e.g., inventories of computers and word processing equipment) and associated classified media.

The generic shipboard organization and administrative organization have been discussed, with administrative functions specific to this study described. The following chapters will utilize this information to develop conceptual schema for each view (function). Chapter III discusses this data modeling approach.

#### III. DATA MODELING

#### A. DATA MODELING APPROACH

The data modeling approach is a method of describing data from the user's point of view regardless of how that data is physically stored and utilized. The goal of data modeling is to capture the data requirements of an organization in a manner that is simple and understandable to both the designer and the end-user. The following is a brief description of the steps involved in data modeling which will be applied to modeling the data of a generic ship. Figure 4 is a graphical representation of these steps as it applies to database design.

#### 1. Requirements Collection and Analysis

We must know the uses of the database and the expectations of the users in order to effectively design the schema. These requirements are collected and analyzed in this step. There are several approaches to collecting the necessary requirements of the system. The following are some of the more commonly used methods to perform this step (These are discussed in Ref. 4):

## a. Identification of User Groups and Application Areas

User groups must be chosen and key individuals must be identified from each user group as the primary points of contact to assist with the requirements collection and specification. The major application areas and the user

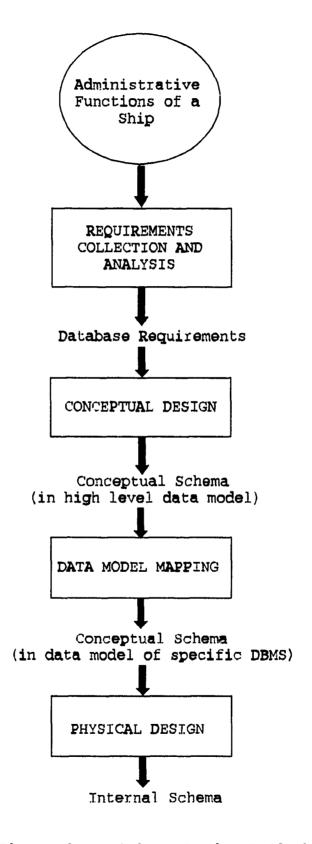


Figure 4: Database Design Method

groups that will use the database must also be identified in this step.

#### b. Review of Existing Documentation

The existing documentation for each application must be reviewed and analyzed. This documentation, which includes policy manuals, forms, reports, and organization charts, is examined to identify possible information that should be included in the database.

## c. Analysis of the Operating Environment and the Processing Requirements

The processing requirements of the system must be analyzed, including current and future requirements. The transactions in the system are the best sources of information for this step. The transactions should be analyzed according to their type, frequency and their input and output data. The flow of information within the system should also be analyzed. This analysis will provide information about the frequency and volume of updates to the database.

#### d. Questionnaires and Interviews

Questionnaires should be given to the potential users of the database inquiring about their priorities and the importance they place on the different applications. The key individuals should be interviewed in order to obtain more detailed information about the worth of the information and the priorities.

In our application, the administrative functions of a generic ship were examined using all of the above mentioned methods, except questionnaires, to determine the data required to support each function.

#### 2. Conceptual Design

The conceptual schema describes the data requirements of the users in a high level model, giving detailed descriptions of the entities, their attributes, relationships between these entities, and constraints on the relationships. Because implementation details are ignored at this point, this schema is easier for non-technical users to understand, and database designers can concentrate on describing the data requirements without concern about storage requirements. The multiple views which are developed must be integrated into a single, nonredundant, global schema in this step. This is required when more than one person, each with a different perspective of the world, is involved in requirements collection and analysis. A high level data model is used in this step because it is more expressive and general than data models of individual DBMS's. [Ref. 4] We have used the Entity Relationship Model (ERM) as our high level conceptual model. A detailed description of ERM is given in Section B.

#### 3. Data Model Mapping

After this conceptual design (or schema) is completed, it is transformed from a high level data model to the implementation data model. This transformation is dependent on the

data model that will be used for implementation (e.g., relational, hierarchical, network) rather than a specific DBMS. For example, if we decide to use a relational DBMS for the final implementation, then a system independent relational schema will be the output of this phase. External schema (views) for each application using the database are usually defined during this phase.

#### 4. Physical Design

The final step is converting this conceptual schema into the Physical Design, which specifies internal storage structures and file organizations for the specific DBMS used.

[Ref. 4]

This study will focus on the first two steps in this data modeling approach. The administrative functions of a generic ship will be analyzed and the requirements for each function-will be collected utilizing the approaches described above. A high level data model will be developed for each function, and the independent views of these functions will be integrated into a single, nonredundant, global schema.

The following section discusses the Entity Relationship Model and its constructs in detail.

#### B. ENTITY RELATIONSHIP MODEL

The Entity Relationship model is a technique used in developing high level conceptual data models. It consists of entities and their attributes and the relationships between

the entities. The basic constructs of the Entity Relationship Model are depicted in Figure 5.

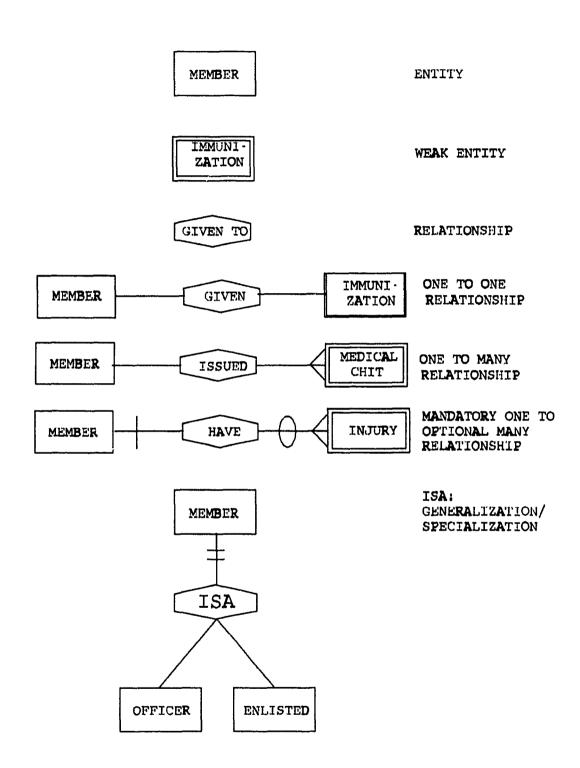


Figure 5: Basic Constructs in Entity Relationship Diagram

The constructs discussed in this section are derived from Reference 5.

An entity is a "thing" in the real world which can be distinctly identified. It is usually a person, place, thing, or event of informational interest and is represented by a rectangle. A particular occurrence of an entity is called an instance of that entity. For example, a MEMBER is an entity and an instance of this entity would be "LT John Smith". Each entity has specific attributes which further describe it. For example, a member may be described by his name, address, phone number, sex, age, etc. There is at least one attribute which uniquely identifies that entity: this is called the key attribute or identifier. For example, the key attribute for a MEMBER is social security number. A weak entity is an entity which depends on the existence of another entity type. For example, an IMMUNIZATION cannot occur by itself in an organization's database: it depends on the existence of the entity MEMBER. A weak entity is represented by a double rectangle.

Relationships represent associations between entities. For example, GIVEN is the relationship between a MEMBER and an IMMUNIZATION. A relationship is represented by a diamond-shaped box with lines connected to the related entities. Relationships can be classified according to the type of mapping between entities. These are one-to-one, one-to-many and many-to-many. As can be seen in Figure 5, a one-to-one relationship is represented by a straight line between the

entities and the relationship. A one-to-many relationship is represented by a straight line between the single entity and the relationship and a straight line between the relationship and the entity with multiple instances, with a crow's foot on the end next to the entity. A many-to-many relationship has crow's feet on the lines next to both entities. Relationships can also be classified according to whether they are mandatory or optional. If an occurrence of an entity must always exist for the other entity to be included in the relationship, then it is mandatory. If the occurrence need not exist, it is optional. For example, the relationship between MEMBER and INJURIES is Mandatory One to Optional Many. This means the MEMBER may have one or more INJURYs, but if an INJURY exists, it must belong to one MEMBER. It is important that the designer identify the type of mapping and existence constraints of relationships and include them in the entity relationship diagram. An optional relationship is represented by an "O" on the connecting line between the entity and the relationship, next to the entity that is optional. A manuatory relationship is represented by a straight line across the connecting line between the entity and the relationship, next to the entity that is mandatory. Figure 5 illustrates how these relationships are represented.

Generalization/Specialization (or ISA) relationships can also be represented in an Entity Relationship Diagram. Specialization occurs when an entity is partitioned by

different values of a common attribute: this is also known as a superclass and subclass relationship. For example, MEMBER is a generalization of OFFICER and ENLISTED service members. MEMBER is the superclass and OFFICER and ENLISTED are the subclasses. This is denoted by the ISA relationship, which is read MEMBER is a(n) ENLISTED. Both OFFICER and ENLISTED share common attributes, such as social security number or address, but both have distinct attributes associated only with that generalization/specialization. For example, OFFICER would have the attribute RANK, while ENLISTED would have the attributes RATE and RATING. ENLISTED would also have advancement exam data elements that an OFFICER would not have. A MEMBER can be either an OFFICER or an ENLISTED. If the MEMBER were an OFFICER, he would have all the attributes of MEMBER plus the attributes of OFFICER. If he were an ENLISTED he would have all the attributes of MEMBER plus the attributes of ENLISTED. In a generalization, a MEMBER would have to be either an OFFICER or an ENLISTED. In a disjunct specialization, a MEMPER would have the option of being OFFICER, ENLISTED, or neither. For example, a MEMBER could be a civilian employee and not included in OFFICER or ENLISTED. This is a disjunct relationship, because a MEMBER could be an OFFICER or an ' ENLISTED, but not both.

There is also an overlapping specialization. This is where an entity can be a member of more than one sub-class. For example, a PERSON could be a generalization of FACULTY, STAFF

and STUDENT. A PERSON could be a STAFF member and a STUDENT at the same time. [Ref. 5] Neither of these relationships occurs in this section of the study but the disjunct specialization is addressed in the associated thesis written by LT Teresa N. Briede. [Ref. 3]

In the next chapter, we will apply the Entity Relationship Methodology discussed previously to develop a high level conceptual model for the administrative functions studied in this thesis.

## IV. CONCEPTUAL DESIGN

In this chapter we apply the data modeling approach presented in the previous chapter to modeling the data requirements for the following functions: DRUG AND ALCOHOL PROGRAM ADVISOR (DAPA), WATCH, QUARTER AND STATION BILL (WQSB), SAFETY, MEDICAL, and SECURITY. In the following sections we present, in detail, the Entity Relationship Diagrams for each function. In the text that follows, an entity is represented by uppercase words; mandatory relationships are stated with "must" and optional relationships are stated with "must" and optional relationships are stated with "may".

# A. DRUG AND ALCOHOL PROGRAM ADVISOR (DAPA)

The DRUG AND ALCOHOL PROGRAM ADVISOR (DAPA) is an administrative function performed by a member of the command. The Entity Relationship Diagram for the DAPA function is shown in Appendix A. The DAPA entity includes information such as advisor name as an identifier, certification date and phone number. The DAPA may conduct one or more CLIENT SCREENs on at least one MEMBER. The CLIENT SCREEN entity contains client number as the key attribute and other attributes such as screen date and screen program code. The DAPA may also arrange at least one REFERRAL for one or more MEMBERs for additional external counseling. The REFERRAL entity contains referral date and client number as identifiers and other attributes applicable to the MEMBER's treatment history, the presenting

problem and the MEMBER's performance, attitude, and leadership traits for the referral counselor.

# B. WATCH, QUARTER AND STATION BILL (WQSB)

The Watch Quarter and Station Bill (WQSB) is an administrative function coordinated by the Senior Watch Officer. The Entity Relationship Diagram for the WQSB function is shown in Appendix B. The WQSB is a composite of various SHIP BILLs. The SHIP BILL entity contains bill name and bill number as key attributes and other attributes such as station name, station duty provide and bill type code. The WQSB entity contains billet number as the identifier and other attributes such as bill name, condition type, and station assigned. MEMBERS may be assigned to SHIP BILLs and are listed in the WQSB.

### C. SAFETY

SAFETY is an administrative function which is performed by a MEMBER assigned duties as the Safety Officer. SAFETY consists of several programs to ensure the safety of the ship and its members. The Entity Relationship Diagram of the SAFETY function is shown in Appendix C. SAFETY may conduct at least one MISHAP INVESTIGATION. The MISHAP INVESTIGATION entity includes mishap date and mishap time as identifiers and other attributes including mishap category, mishap cause, and mishap location. SAFETY may investigate at least one HAZARD-/DEFICIENCY ITEM which contains information about items noted by an individual which have the potential to create a hazard or safety deficiency; this entity uses sequence number as the

identifier and includes attributes such as hazard identification code, report location, and report time. SAFETY must execute at least one ELECTRICAL SAFETY CHECK which keeps information about the electrical safety condition of various electrical equipments on the ship. ELECTRICAL SAFETY CHECK contains the key attributes check date and check type and other attributes such as authorization date and item name. SAFETY must organize OFF DUTY TRAINING regarding safety precautions exercised by MEMBERs while off duty. OFF DUTY TRAINING consists of the key attribute off duty safety type and other attributes such as off duty training date and off duty training topic. SAFETY must supervise one or more MEDICAL SURVEILLANCE EVALs, which are evaluations to determine if medical follow-ups are required on a MEMBER as a result of exposure to some type of a physical hazard. MEDICAL SURVEIL-LANCE EVALs contain the key attributes evaluation date and surveillance type. SAFETY must control one or more HAZARDOUS MATERIAL ITEMs that may be present onboard the ship. This entity contains the key attribute hazmat item number and other attributes such as chemical name, estimated usage, and shelf life. Information concerning HEAT STRESS EQUIPMENT may be maintained by SAFETY. HEAT STRESS EQUIPMENT is equipment used to conduct heat stress monitoring tests. This entity includes the key attribute equipment type and other attributes such as calibration date, recalibration date, equipment type quantity, etc. HEARING CONSERVATION SURVEYs must be recorded by SAFETY.

This entity includes the identifier compartment location, as well as other attributes such as noise source code, date of last survey, and noise level. SIGHT SURVEYs must be monitored by SAFETY. SIGHT SURVEY tracks information concerning particular compartments or spaces that contain personnel eyesight hazards such as lasers or heavy machinery. This entity includes the key attributes space location and survey date. RESPIRATORY EQUIPMENT must be tested by SAFETY to ensure the proper working condition and usage of the equipment issued to the crew. The RESPIRATORY EQUIPMENT entity contains fit test date and respirator type as identifiers and other attributes such as fit test type and user condition code. RADIATION SURVEYS may be tracked by SAFETY. RADIATION SURVEYS are conducted to determine the type and amount of radiation exposure received by a member. This entity includes the key attributes survey date and survey type. SAFETY may coordinate one or more MOTOR VEHICLE COURSEs on safety while driving a motor vehicle. The MOTOR VEHICLE COURSE entity contains the key attribute motor vehicle type and other attributes such as course name, course date, coordinator name, etc. SAFETY must review one or more GAS FREE TESTs which ensure a safe environment for members to enter into a space and/or perform hot work ~ (i.e., welding, brazing, etc.). The GAS FREE TEST entity consists of the key attributes test date and compartment name as well as other attributes such as test action, entry type, and test expiration date, etc. SAFETY must audit at least one

EQUIPMENT TAG OUT to ensure all equipment is properly tagged for safe operation or maintenance. The EQUIPMENT TAG OUT entity contains the identifier department sequence number and other attributes such as action type, action date, system affected, equipment name, etc.

## D. MEDICAL

MEDICAL is a double faceted administrative function. The first deals with the service member specifically, and the second deals with generic medical functions for the ship as an organization. A MEMBER may be assigned as the medical representative for the ship. The Entity Relationship diagrams of the MEDICAL function are shown in Appendix D. We discuss the member aspect first.

One or more INJURYs may occur to a MEMBER. An INJURY contains attributes pertaining to the circumstances of the INJURY occurring to the MEMBER. The key attribute is injury sequence number with other attributes such as injury location, injury date, injury diagnosis, and injury treatment. One or more MEDICINALs may be issued to a MEMBER. The MEDICINAL entity contains attributes that describe the type, nature and quantity of medicines that are given to a MEMBER. The key attribute is prescription number with other attributes such as medicinal date, patient number, national stock number, and quantity issued. A MEMBER may receive one or more RADIATION EXPOSUREs during his career. The RADIATION EXPOSURE entity contains information about radiation that a MEMBER may receive

in the course of his duties. RADIATION EXPOSURE contains the identifiers quarter number and sequence number as well as other attributes like radiation code, exposure skin dosage, total life dosage, permissible lifetime count, etc. At least one HEAT EXPOSURE may be received by a MEMBER. An instance of a HEAT EXPOSURE includes the identifier exposure date an other attributes such as personal heat exposure limit (PHEL) exposure time, PHEL recovery time, etc. A MEMBER must take at least one PHYSICAL EXAM during his career. PHYSICAL EXAM contains the key attributes physical exam date and exam type as well as other attributes like exam due date, exam results, physician name, etc. A MEMBER may be issued one or more MEDICAL CHITs containing the MEMBER's medical status for performing assigned duties. MEDICAL CHIT consists of the identifier chit type and other attributes such as chit reason, chit effective dates, etc. A MEMBER may go to one or more SICKCALL. An instance of a SICKCALL includes the identifier sickcall date and other attributes like vital signs, disposition type, disposition comments, etc. A MEMBER may be referred to at least one MEDICAL CONSULT, which contains information about medical services required from a facility other than the ship's medical department. This entity contains the key attributes consult date and consult type as well as other attributes such as consult time, consult place, consult reason, etc. A MEMBER may undergo one or more LAB TESTs for various medical purposes. LAB TEST is identified by sequence

number with other attributes including lab test type, lab test date, lab test results, etc. One or more occurrences of VISION INFORMATION may be maintained on a MEMBER. VISION INFORMATION is identified by eye exam date and contains other attributes such as eye exam type, eyewear indicator, lens type, etc. At least one occurrence of HEARING PROTECTION must be monitored on a MEMBER. HEARING PROTECTION contains the key attributes audiogram type and audiogram date, with other attributes including audiogram comments, double protection indicator, ear plug type, etc. One or more DENTAL occurrences may be tracked on a MEMBER. The DENTAL entity is identified by classification number with other attributes such as dental exam due date, follow-up date, etc. At least one IMMUNIZATION must be given to a MEMBER during his career. The IMMUNIZATION entity includes the key attributes immunization type and immunization date and other attributes such as immunization dose, batch number, etc.

The second aspect of the MEDICAL function deals with information applicable to the ship and/or the medical department. At least one INVENTORY ITEM must be kept by MEDICAL. INVENTORY ITEM is identified by inventory date and inventory type with other attributes such as inventory location, inventory allowance, item expiration date, etc. MEDICAL must execute one or more PEST CONTROL actions onboard the ship on a periodic basis. The PEST CONTROL entity includes the identifiers pest control date and pest control action with

other attributes like space sprayed, pest count, etc. MEDICAL must monitor at least one instance of HEAT STRESS which contains heat survey information of a particular space. An instance of HEAT STRESS is identified by heat survey sample date and heat survey sample location with other attributes including heat survey dry/wet bulb temperature, sample time, etc. MEDICAL must maintain one or more MEDICAL LIBRARY ITEMs, which provides reference information for the MEDICAL assistant. An instance of a MEDICAL LIBRARY ITEM includes the identifier publication number with other attributes such as publication date, publication title, etc. At least one WATER SAMPLE must be taken by the MEDICAL department to monitor the condition of the water stored onboard the ship. The WATER SAMPLE entity is identified by water test sequence number and includes other attributes like test date, bacteria test results, test location, test source, etc.

#### E. SECURITY

SECURITY is an administrative function consisting of six sub-functions: PHYSICAL SECURITY, PERSONNEL RELIABILITY, VISITOR CONTROL, CLEARANCE/ACCESS, AUTOMATED DATA PROCESSING (ADP) SECURITY and CLASSIFIED MATERIAL. A MEMBER may be assigned as the the ship's Security Officer or supervise one or more SECURITY sub-functions. The Entity Relationship diagram of the SECURITY function is shown in Appendix E.

## 1. Physical Security

PHYSICAL SECURITY involves information required to ensure the security and integrity of equipments and compartments onboard the ship. The Entity Relationship Diagram of the PHYSICAL SECURITY function is shown in Appendix F. One or more pieces of EQUIPMENT may be tracked by PHYSICAL SECURITY. An instance of EQUIPMENT is identified by equipment identification number; the other attribute is equipment location. PHYSICAL SECURITY may keep track of one or more KEYS & LOCKS for various spaces and equipments throughout the ship. KEYS & LOCKS is identified by key/lock serial number with other attributes including key/lock location and key/lock type. PHYSICAL SECURITY may control one or more KEYS which belong to a COMPARTMENT. An instance of a KEY is represented by a key serial number. PHYSICAL SECURITY may restrict access by personnel to one or more COMPARTMENTs. Information stored by PHYSICAL SECURITY about a restricted COMPARTMENT is identified by compartment number. Other attributes include compartment location and compartment name. One or more MEMBERs may carry one or more KEYS and may be authorized access to at least one COMPARTMENT.

# 2. Personnel Reliability

PERSONNEL RELIABILITY is an administrative program (function) utilized by the Security Officer of the ship to screen MEMBERs for special security programs (e.g., Nuclear Weapons). The Entity Relationship Diagram of the PERSONNEL

RELIABILITY function is shown in Appendix G. A MEMBER may be screened to become a PRP MEMBER. Information concerning PRP MEMBER is identified by PRP assignment status and PRP badge number. Other attributes include PRP certification date, PRP key access code, PRP certification date, etc. A MEMBER may be selected as a SECURITY FORCE MEMBER. A PRP MEMBER is a SECURITY FORCE MEMBER; however a SECURITY FORCE MEMBER may not necessarily be a PRP MEMBER. Information about a SECURITY FORCE MEMBER includes the key attributes security force billet name and security force duty section, with other attributes including security force status indicator, security force status date, weapon qualification type/date, etc. One or more PRP MEMBERs participate in the PRP. The information maintained on the command Personnel Reliability Program includes such attributes as PRP certifying officer name, certifying officer rank, number of controlled and critical billets required, etc. The PERSONNEL RELIABILITY PROGRAM must contain one or more PRP BILLETs. An instance of a PRP BILLET includes the identifier PRP billet name, as well as PRP assignment date and PRP billet type.

## 3. Visitor Control

VISITOR CONTROL is the administrative function which 'tracks the authorization of access to the ship by individuals other than the ship's crew. The Entity Relationship Diagram of the VISITOR CONTROL function is shown in Appendix H. VISITOR CONTROL may monitor at least one FOREIGN NATIONAL VISITOR. An

instance of a FOREIGN NATIONAL VISITOR includes the identifier foreign visitor arrival date and other attributes such as name, citizenship, clearance, etc. VISITOR CONTROL may log information about one or more VISITORs to the ship. An instance of a VISITOR includes the key attribute visitor arrival date and time, as well as other attributes like visitor badge number, visitor destination, etc. VISITOR CONTROL must track individuals who are entered on the authorized SHIP ACCESS LIST. An instance of SHIP ACCESS LIST includes the key attributes individual name and individual SSN, with other attributes such as individual clearance, individual organization, etc.

## 4. Clearance/Access

CLEARANCE/ACCESS is an administrative function that controls personnel clearances and access to classified material and spaces onboard the ship. The Entity Relationship Diagram of the CLEARANCE/ACCESS function is shown in Appendix I. One or more SECURITY CLEARANCEs may be granted to a MEMBER throughout his career. An instance of a SECURITY CLEARANCE includes the key attribute clearance date granted and other attributes such as clearance level, access level, clearance basis, etc. One or more ARREST RECORDs may be filed on a MEMBER. An instance of an ARREST RECORD consists of the key attributes arrest date and arrest offense, and other attributes such as arresting agency, arrest disposition, etc. A MEMBER may occupy one or more RESIDENCEs during his career. An

instance of a RESIDENCE includes the identifiers residence from date and residence to date and other attributes like residence address, roommate name, etc. A MEMBER may have contact with one or more FOREIGN ASSOCIATES. An instance of a FOREIGN ASSOCIATE includes the key attribute foreign associate name as well as other attributes such as foreign associate address, foreign associate citizenship, etc. A MEMBER may obtain at least one CREDIT REFERENCE, an instance of which includes the identifier credit account number and other attributes like credit reference name and credit reference address. A MEMBER maintains one or more CHARACTER REFERENCEs. Information about a CHARACTER REFERENCE includes the identifier reference name and other attributes such as reference association, from/to dates, reference address, etc. A MEMBER may have one or more EMPLOYMENTs in his history. The information required about a member's EMPLOYMENT history includes the identifiers employment from date and employment to date, as well as other attributes like employer address, immediate supervisor, employer name, etc. A MEMBER may belong to one or more ORGANIZATIONs. Information concerning an ORGANIZATION includes the identifiers organization name and organization membership from date, and other attributes like organization type, and organization address. A MEMBER may keep a CREDIT HISTORY, which whores information concerning a MEMBER's bad credit, with logical attributes such as debt delinquency, unpaid judgements, garnished wages, repossessions, etc. A

SECURITY BACKGROUND may be maintained on a MEMBER which includes logical attributes to indicate if the MEMBER has had alcohol problems, foreign employment, illegal substance use, mental health problems, etc.

# 5. ADP Security

ADP SECURITY is the administrative function that pertains to the controlled access and utilization of ADP equipment and software. The Entity Relationship Diagram of the ADP SECURITY function is shown in Appendix J. One or more ADP SYSTEMs may be surveyed by the ADP Security Officer. The ADP SYSTEM entity includes the identifier ADP system identification and other attributes such as ADP system description, ADP system location, etc. At least one ADP COUNTERMEASURE is developed by the ADP Security Officer. An ADP COUNTERMEASURE instance contains countermeasure name. At least one ADP THREAT may effect one or more ADP ASSETs and ADP COUNTERMEASUREs. An instance of an ADP THREAT includes the key attribute threat name as well as threat level. The ADP Security Officer must maintain one or more ADP ASSETs. Information stored on an ADP ASSET includes the identifier serial number as well as other attributes such as asset type, asset description, location, price, etc. The relation "affects" contains the threat level assessed for a given threat with respect to a given COUNTER-MEASURE and ASSET. The ADP Security Officer may assign at least one ADP CONTINGENCY PERSONNEL to handle contingency situations. The ADP CONTINGENCY PERSONNEL entity includes the

key attributes personnel name and contingency team and other attributes like personnel position, office phone, etc. The ADP Security Officer may specify one or more ADP CONTINGENCY SUPPLY ITEMs necessary in the event of a contingency situation. An instance of an ADP CONTINGENCY SUPPLY ITEM includes the identifier supply stock number as well as other attributes like supply source, supplier phone number, etc. The ADP Security Officer may track many ADP CLASSIFIED MEDIA used within the command. This entity includes the identifier media serial number and other attributes like media classification, directory listing, location, etc. One or more ADP ACCREDITA-TION must be obtained by the ADP Security Officer for the command throughout the command's life. The ADP ACCREDITATION information includes the key attribute accreditation date and other attributes like accreditation authorization, processing level and mode, etc.

## 6. Classified Material Security

CLASSIFIED MATERIAL SECURITY is the sub-function which pertains to the handling and storage of classified material. The Entity Relationship Diagram of the CLASSIFIED MATERIAL SECURITY function is shown in Appendix K. CLASSIFIED MATERIAL SECURITY may record one or more CLASSIFIED MATERIAL items. A - CLASSIFIED MATERIAL item includes the key attribute serial number, as well as origin date, receipt date, destruction date, etc. A CLASSIFIED MATERIAL item may have one or more DISCLOSURES. DISCLOSURE information includes the key attrib-

utes disclosure date and disclosure name, and disclosure activity. CLASSIFIED MATERIAL SECURITY must oversee one or more SECURITY CONTAINERS. Information maintained on a SECURITY CONTAINER includes container number as the identifier as well as container classification, combination change date, etc. One or more SECURITY CONTAINERS may be accessed by one or more MEMBERS. A SECURITY CONTAINER must have one or more CONTAINER INSPECTIONs, which includes the key attribute inspection/repair date, plus other attributes like inspector initials, inspection comments, etc. A MEMBER may be designated as a COURIER one or more times during his career. COURIER information includes the identifier start date as well as end date, item description, etc. A MEMBER may make at least one CLASSI-FIED REPRODUCTION REQUEST, which includes the identifier request date and other attributes like reproduction authority date, reproduction reason, etc. A MEMBER may sign one or more NON-DISCLOSURE AGREEMENTs indicating his acknowledgement of proper security procedures with regard to classified material. This information includes the key attribute acceptance command name and other attributes like agreement date. witness name, etc.

A consolidated data dictionary for all the Entity Relationship diagrams discussed in this is contained in Appendix
L. An associated dictionary of abbreviations is contained in
Appendix M. In the next chapter we will discuss and illustrate

the integration of these Entity Relationship Diagrams into one global high level conceptual schema.

#### V. VIEW INTEGRATION AND ENTITY CLUSTERING

#### A. VIEW INTEGRATION

The entity relationship diagrams of the administrative functions developed in Chapter IV represent the different user views of a generic ship's database. This chapter discusses the concept of integrating the different user views into a single, nonredundant, global schema. This integrated diagram is illustrated in Appendix N. The discussion regarding view integration is derived from Elmasri and Navathe [Ref. 4]

Different schema must be compared with each other to identify and resolve any conflicts before integration can be accomplished. Two primary types of conflicts which can occur are naming and structural. Naming conflicts include homonyms and synonyms. Homonyms occur when the same name is given to two or more different entities. These can be detected by scanning the different entity relationship diagrams and searching for common names. Synonyms can occur when different names are given to the same entity. These can be found by scanning the data dictionary and comparing similar names. If all of the diagrams were developed with the same CASE tool, as was the case in this thesis, a central data dictionary will not allow these conflicts to occur.

Structural conflicts occur in the schema structure itself.

Type conflicts occur when different Entity Relationship constructs are used to describe the same concept. For example, a concept can be represented as an entity in one diagram and

as an instance of that entity in another diagram. This occurs in our study when describing the sub-functions associated with SECURITY. The ADP SECURITY entity is actually an instance of the SECURITY SUB-FUNCTION entity. Dependency conflicts occur when the connectivity between two entities is represented in two different ways. For example, one user may describe the relationship as a one-to-many and another user may describe the same relationship in a different view as a many-to-many. Key conflicts result when different key attributes are assigned to the same entity in different views. For example, one user may say the key attribute of DEPENDENT is the dependent's social security number, and another user may designate the dependent's first and middle name as the key attribute.

In this thesis, the previously described conflicts are less likely to occur as there was only one designer involved in the process. However, the different views must be compared and checked for conflicts, because the designer may see the same relationship or entity in another perspective when designing the different views.

After the conflicts are detected, users and designers need to interact in order to resolve these conflicts. The main goal is schema conformity for subsequent integration. This may involve modifying entity names, resolving relationship constraints and connectivity, changing key attributes on some entities, etc.

The actual merging and restructuring of the schema is the final step in the view integration process. Entities that occur in several views, e.g., MEMBER, are merged or superimposed in the integrated view. Other entities that do not overlap will stay unchanged with their relationships to the common entities. Any redundant relationships that occur from the merge can be deleted. The designer must make sure that the integrated view makes sense to the user, that all redundant entities and relationships are removed, and that the global schema is complete. Once a global schema is developed, it can become extremely large and complex. One method to reduce complexity in the global schema is a technique called entity clustering.

In this thesis, each of the administrative function entity relationship diagrams was examined and modified, as necessary, to resolve any conflicts detected in the diagrams and enable integration. The different executive assistants for each administrative function were renamed as "EXECUTIVE ASSISTANT". The common entities in each diagram were then merged into one entity for each type. These included MEMBER, EXECUTIVE ASSISTANT and DEPARTMENT. Individual instances of the SECURITY sub-functions (i.e., PHYSICAL SECURITY, PRP, VISITOR CONTROL, ADP, CLASSIFIED MATERIAL) were combined to form the entity executive ASSISTANT SUB-FUNCTION. Next, abstraction grouping was applied to the EXECUTIVE ASSISTANT SUB-FUNCTIONs to form the EXECUTIVE ASSISTANT entity cluster. The remainder of the

entities did not overlap, so they appear unchanged in the merged, global schema. The clustering technique was then applied to the global schema. This technique is discussed in the following section.

#### B. CLUSTERING CONCEPTS

Layered levels of abstraction can be achieved using entity clustering to create a higher level view, with fewer details, of the integrated global schema. This helps the user and the database designer to better understand and manage a potentially large and complex database. The entity clusters formed as a result of using this technique are illustrated in Appendix O.

The entity clustering technique can be thought of as a grouping operation which combines entities and their relation—ships to create a higher level of abstraction. Multiple levels of abstraction can be formed by grouping entities into clusters and clusters into higher level entity clusters. The four most common grouping operations are: dominance grouping, abstraction grouping, constraint grouping, and relationship grouping. [Ref. 6]

# 1. Dominance Grouping

In this operation, each dominant entity is grouped with all of its related nondominant entities to form an entity cluster. Weak entities and entities that are dependent on another entity can be absorbed into their related entity to form a cluster.

# 2. Abstraction Grouping

In this operation, multilevel objects, for example, generalization/specialization or aggregation, are combined to form an entity cluster. The supertype or aggregate entity name is used to name the intity cluster.

# 3. Constraint Grouping

In this operation, constraint related objects that extend the Entity Relationship Model, for example, two or more entities related to an entity but constrained by an exclusive OR relationship, are combined into an entity cluster. The entity cluster is named with the name of the dominant or parent entity.

# 4. Relationship Grouping

In this operation, relationships with a degree of three or more are grouped into an entity cluster. The entity cluster name is the name of the relationship.

In developing the high level schema, any or all of these techniques can be used. The designer must choose the operations which best suit the character of the database.

It is very important to validate the cluster diagram after the grouping is complete. The consistency of the relationships between entities must be checked at each level of the diagram. The meaning of each level must also be verified by the endusers.

Creating multiple levels of abstraction with the entity clustering technique, simplifies the diagram for end-user

comprehension, without losing the complexity necessary for the database designer.

In this thesis, abstraction and dominance grouping techniques were used. In the SAFETY function, dominance grouping was applied to the non-dominant and weak entities related to EXECUTIVE ASSISTANT to form the entity cluster EXECUTIVE ASSISTANT-SAFETY.

In the SECURITY function, dominance grouping was applied to the weak and non-dominant entities of the SECURITY-CLASSI-FIED MATERIAL sub-function related to MEMBER to form the MEMBER-CLASSIFIED MATERIAL entity cluster. Next, dominance grouping was applied to weak entities of the SECURITY-CLEAR-ANCE/ACCESS sub-function that related to MEMBER to form the MEMBER-CLEARANCE/ACCESS entity cluster. Then instances of SECURITY sub-functions (e.g., PHYSICAL SECURITY, PRP, VISITOR CONTROL, ADP SECURITY, CLASSIFIED MATERIAL) were grouped into the EXECUTIVE ASSISTANT SUB-FUNCTION entity cluster. Finally, abstraction grouping was applied to the SECURITY entity to form the EXECUTIVE ASSISTANT-SECURITY entity cluster.

In the MEDICAL function, dominance grouping was applied to the weak entities and non-dominant entities related to MEMBER to form the MEMBER-MEDICAL entity cluster. Next, dominance and abstraction grouping was applied to the weak entities of MEDICAL to form the EXECUTIVE ASSISTANT-MEDICAL entity cluster.

In the DAPA function, the weak entities related to MEMBER were grouped into the MEMBER-DAPA entity cluster using dominance grouping.

In the WATCH, QUARTER & STATION BILL (WQSB) function, the non-dominant BILLET and SHIP BILL entities were combined into the WQSB entity cluster using abstraction grouping. Then the WQSB entity was combined with the DEPARTMENT entity to form the DEPT entity cluster.

These functional clusters were applied to the global picture and the MEMBER clusters were combined to form a single MEMBER cluster called MEMBER-ADMIN. The EXECUTIVE ASSISTANT SUB-FUNCTION entity was combined with EXECUTIVE ASSISTANT to form the EXECUTIVE ASSISTANT entity cluster. The resulting high level diagram contains the DEPARTMENT, MEMBER-ADMIN and EXECUTIVE ASSISTANT entity clusters.

This high level abstraction is very simple with few details; it is used to give the user a broad view of the system. The remaining clusters show the important areas of focus in the system. The designer will use the lower level diagrams with the details to develop a database.

In the next chapter, the conclusions and recommendations resulting from this study are discussed.

## VI. CONCLUSIONS AND RECOMMENDATIONS

#### A. CONCLUSIONS

The objective of this thesis was to explore the possibility of developing a high level conceptual data model for the administrative functions of a generic naval ship. This study has shown that it is indeed possible to develop such a model.

Our focus when using the data modeling appoach was to capture the data requirements as the basis for developing computer based applications. This focus differs with other methodologies of system design that concentrate on specifying functional or process requirements. As the organizational environment changes, so do the process requirements that support the different organizational units. Organizational data requirements, however, tend to be more stable over the life of that system.

Our approach is comparable to the CIM initiative in that it places emphasis on specifying data requirements rather than process requirements, thus providing a good foundation for standardization of information. CIM efforts, however, have been directed toward the standardization of data elements, the lowest element in the data hierarchy, as the foundation for standardizing information systems at DoD. Our efforts extend beyond the CIM initiative by specifying a common conceptual data model for Navy ships. The conceptual data model can be readily transformed into a standardized model-specific schema. This approach is particularly appealing within a Navy environ-

ment because by their nature, Navy organizations are generally structured in the same manner. This uniformity lends itself to the development of a standardized schema. This standardized schema can then be tailored to fit the structure of a specific organization.

From the standardized schema, a "master" database can be developed from which specific databases for each ship class or type can be generated or modified as necessary. For example, a newly commissioned ship can download its command database from an established master database. This process will significantly reduce the man-hours necessary to manually design and develop a command database. Subsequent updates to the command database can be accomplished electronically from the master database. This process will also improve the integrity, accuracy and security of the data. Additionally, the requisite amount of paperwork, storage space and database maintenance will be significantly minimized.

Schema standardization also makes possible the development of applications that are fully compatible between shore and fleet units. The advantage of establishing standardization at the schema level can be realized when data transfers between units both ashore and afloat can be accomplished without protocol or format conversions. To illustrate this concept, imagine a ship's personnel office updating the Enlisted Data Verification Record (EDVR) via direct on-line access to a master personnel database in Washington, D.C., which maintains

personnel and manning information for all Navy units or activities. Queries, updates and verifications could be accomplished in a matter of minutes with immediate on-line verification. This would be a significant improvement over current mailing delays, non-receipt or misrouting of message traffic and cumbersome manual update and verification procedures. The standardized schema will also improve interoperability between ships and their administrative and operational chains of command. Ships could electronically transfer operational, technical, material and personnel information to squadron, group and type commanders. This information could be consolidated with the other ships' information and used for monitoring ship material, personnel and operational readiness status for administrative and operational tasking, certifications, assessments and inspections. Data exchange can be accomplished via telecommunication circuits that are not physically or geographically limited (e.g., telephone land line, satellite communications, etc.), thus providing realtime information regardless of location.

If applied to other functional areas within and/or between services, our approach could benefit efforts to accomplish data exchange between organizations. More importantly, however, is the potential for significantly improving data exchanges among different branches within the DoD. Joint interoperability has become a paramount objective of the

Secretary of Defense, the importance of which has been clearly demonstrated by recent events in the Middle East.

This study has followed the standards established by the CIM initiative with one exception: The naming conventions defined by CIM, which exclude abbreviations and acronyms, create unreasonably long data element names. This constraint severely limits the number of available CASE tools for system design. Most tools generally allow data element names with a maximum limit of 32 characters. In many instances, compliance with CIM naming conventions generated data element name lengths in excess of 60 characters. It is not unreasonable to expect standard acronyms and abbreviations to be understood by users. Standardized lists such as the Dictionary of Naval Abbreviations are readily accessible to users for clarification of an unfamiliar term. Incorporation of standardized and approved abbreviations and acronyms into the CIM data dictionary would reduce data element names to a length which is acceptable to most CASE tools, facilitating improved use of those tools with data modeling and system design in accordance with the CIM initiative without compromising the clarity of data element names.

Several CASE tools were evaluated before choosing Chen and .

Associates ER-DESIGNER for use in this study. This CASE tool most closely met our requirements for diagramming features, report generation, automated and centralized data dictionary, and ease of use. Additionally, Chen and Associates provide

other interactive tools for further development of this project. It also supports interaction with the up coming IBM Repository, a tool that would allow greater interoperability with the CASE tools currently being used by DoD and supporting agencies.

One of the problems encountered in using ER-DESIGNER software was the inability to properly show the mandatory or optional relationships between entities. In order to show this feature, we had to use the software feature of showing the upper and lower bounds in a relationship. Their zero was our optional "O" and their one was our mandatory line. This procedure restricts the use of the report generator function of the tool, because the detailed reports on relationships are inaccurate.

## B. RECOMMENDATIONS

Our recommendation is for DoD to develop or acquire a central repository package which will accept and store data from many other tools in a standardized data dictionary. A good example of this concept is the AD CYCLE package developed by IBM. By following this approach, DoD could utilize existing CASE tools and acquire other tools as necessary with a reduced level of concern for compatibility with other tools or system integration capability over the entire life cycle. Even if a tool has its own central repository and is integrated over the entire life cycle, like Texas Instrument's IEF, it cannot interact with other tools. Emphasis should be placed on the

central repository package, which can alleviate concerns about integration or interoperability between the different CASE tools and resultant conversion costs. This will achieve the standardization goals of the CIM initiative at a point much earlier in a project's life cycle. It will also allow users to use the tools of their choice without having to discard tools that have already been purchased and avoid mandatory use of one "standardized" set of tools. The DoD is currently designing a "standardized" CASE tool for everyone. If this occurs, millions of dollars may be lost in converting all of the information from systems currently being developed by other CASE tools into this new tool. In addition, the large dollar investment for CASE tools already in use may be lost. The idea of a single standardized CASE tool to meet every user's needs would require such a high level of complexity that it would necessitate a substantial investment of dollars and development resources.

#### C. FUTURE RESEARCH EFFORTS

Future efforts should be made to take the data model developed in this study and complete the database design. This includes developing a model specific schema (i.e., relational, hierarchical or network) and the physical design of a DBMS · specific model as discussed in Chapter III. Such efforts should continue to comply with the standards of information established by the CIM initiative.

Finally, we feel the concepts discussed in this thesis are applicable to several other functional areas, both administrative and operational, within the Navy and other services of the DoD. As the size of our military forces is reduced and budget constraints become more demanding, increased levels of joint service interoperability will be required. We perceive a need for development of high level conceptual data models for other functions within the Navy as well as other services to improve requisite interoperability and minimize redundancy among the different branches of DoD. Development and standardization of conceptual data models will facilitate development of systems for improved data exchange and data management between the services.

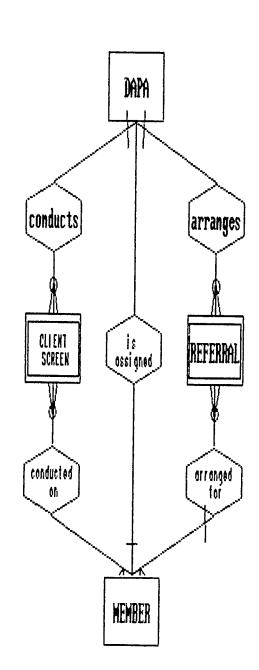
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# APPENDIX A

# DAPA ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the DRUG and ALCOHOL PROGRAM ADVISOR function as discussed in Chapter IV.



#### STRUCTURE REPORT FOR DAPA - VERSION 2.11

#### CLIENT SCREEN =

- DAPA CLIENT NUMBER
- + DAPA SCREEN DATE
- + DAPA CLIENT NAME
- + DAPA DETECTION CATEGORY
- + DAPA DETECTION PREVIOUS NUMBER
- + DAPA FACILITY CODE
- + DAPA FACILITY STAFF NUMBER
- + DAPA PREVIOUS TOXOCOLOGY IND
- + DAPA REFERRAL AGENCY
- + DAPA REFERRAL CONTACT NAME
- + DAPA REFERRAL PHONE
- + DAPA REFERRAL TYPE CODE
- + DAPA SCREEN CLIENT SIGNATURE IND
- + DAPA\_SCREEN\_COUNSELOR\_NAME
- + DAPA SCREEN PROGRAM CODE
- + DAPA SCRN COUNSEL SIGNATURE IND

#### DAPA NAME OF ADVISOR

- + ADMIN SCREEN ACTION ITEM CODE + ADMIN SCREEN ACTION ITEM COMMENT + ADMIN SCREEN ACTION ITEM DATE + DAPA CERTIFICATION DATE

- + DAPA\_CERTIFICATION\_DUE\_DATE
- + DAPA DESIGNATION IND
- + DAPA PHONE

#### MEMBER =

## MEMBER CLIENT NUMBER

- + MEMBER SOCIAL SECURITY NUMBER
- + MEMBER DIVISION ASSIGNED
- + MEMBER WORKCENTER
- + MEMBER WORKCENTER PHONE NUMBER

## REFERRAL =

## REFER CLIENT NUMBER

- + REFER DATE
- + REFER CLIENT ATTITUDE REMARKS
- + REFER CLIENT COMMAND
- + REFER CLIENT COMMAND UIC
- + REFER CLIENT DAPA COMMENTS
- + REFER CLIENT INFORMATION IND
- + REFER CLIENT LEADERSHIP CMNT
- + REFER\_CLIENT\_LEADERSHIP\_CODE
- + REFER CLIENT MED DOCUMENTS IND
- + REFER CLIENT PERFORMANCE CODE
- + REFER\_CLIENT\_PERFORMANCE\_COMMENT
- + REFER\_CLIENT\_PERFORMANCE\_TYPE
- + REFER\_CLIENT\_PERSONAL\_TRAIT\_CMNT
- + REFER\_CLIENT\_PERSONAL\_TRAIT\_CODE
- + REFER\_CLIENT\_PERSONAL\_TRAIT\_IND
- + REFER\_CLIENT\_PREV\_TREATMENT\_CODE

- + REFER CLIENT PREV TREATMENT DATE
- + REFER CLIENT PREV TREATMENT IND
- + REFER CLIENT RELATIONS CODE
- + REFER CLIENT RELATIONS COMMENTS
- + REFER CLIENT RELATIONS TYPE CODE
- + REFER CLIENT RETENTION RECOMMEND
- + REFER CLIENT SUPERVISOR COMMENTS
- + REFER CLIENT SUPERVISOR NAME
- + REFER CLIENT TAD INDICATOR
- + REFER DAPA COMMAND
- + REFER DAPA NAME
- + REFER DAPA PHONE
- + REFER\_PRESENTING\_PROBLEM

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ATTRIBUTE REPORT FOR DAPA - VERSION 2.11

| Attribute Name  | Alias                    | Format       | Key | Object & Type |
|---|--------------------------|--------------|-----|---------------|
| ده شد هر چه دی در به شاه بلو در در در دان در در در دان در |                          |              |     |               |
| ADMIN SCREEN ACTION ITEM CODE<br>SC: CODES TO IDENTIFY SPECIFIC                               | ADSCRITM<br>ADMIN ACTION | N,2<br>ITEMS | N   | DAPA E        |

## Long Comment :

#### ADMIN ACTION ITEM CODES:

- 1 MEMBER IDENTIFIED IN WRITING AS DRUG/ALCOHOL ABUSER
- GET MEDICAL/SERVICE RECORD
- 3 GET MEMBER'S SUPERVISOR TO COMPLETE WRITTEN EVALUATION
- SERVICE RECORD REVIEW COMPLETE
- MEDICAL RECORD REVIEW COMPLETE
- INTERVIEW WITH MEMBER COMPLETED AS NECESSARY
- CAAC APPOINTMENT SCHEDULED AS NECESSARY
- CAAC EVALUATION RECEIVED
- MEDICAL OFFICER APPOITMENT SCHEDULED AS NECESSARY
- 10 MEDICAL OFFICER'S EVALUATION RECEIVED
- 11 DAPA RECOMMENDATION TO THE COMMANDING OFFICER
- 12 DAAR DRAFTED
- 13 DAAR TRANSMITTED
- 14 PROGRAM ENTRY LETTER COMPLETED
- 15 PAGE 13 ENTRY COMPLETED
- 16 MEMBER SENT TO TX LEVEL I, II, OR III

SC: THE CATEGORY OF DETECTION FOR THE REFERRAL

- 17 MEMBER RETURNED FROM TREATMENT
- 18 AFTERCARE ORDERED/PROGRAM ENTRY LETTER UPDATED
- 19 COMPLETE PROGRAM EXIT LETTER
- 20 SEPERATE MEMBER AS NECESSARY FOR REHABILITATION FAILURE

| ADMIN SCREEN ACTION ITEM COMMENT SC: COMMENTS CONCERNING THE SPEC | ADACTCMNT<br>IFIED ADMIN ACT | C,120<br>TION ITEM | N          | DAPA                 | E       |
|---|------------------------------|--------------------|------------|----------------------|---------|
| ADMIN SCREEN ACTION ITEM DATE<br>SC: DATE THE SPECIFIED ACTION IT | ADSCRDT<br>EM WAS COMPLETI   | D<br>ED OR UPD     | N<br>ATED  | DAPA                 | E       |
| DAPA CERTIFICATION DATE<br>SC: DATE WHEN THE DAPA COMPLETED       | DAPCERTDT<br>CERTIFICATION   | D<br>REQUIREM      | n<br>Ents  | DAPA                 | E       |
| DAPA CERTIFICATION DUE DATE<br>SC: DUE DATE FOR RECERTIFICATION   | DAPCERDU<br>TRAINING TO BI   | D<br>E COMPLET     | n<br>Ed As | DAPA<br>NECESSARY    | E       |
| DAPA_CLIENT_NAME_<br>SC: NAME/RANK/TITLE OF THE CLIEN             | DAPCLINAM<br>T               | C,50               | N          | SCREEN               | W       |
| DAPA_CLIENT_NUMBER<br>SC: SEQUENTIAL NUMBER BY YEAR FO            | DAPCLINUM<br>R TRACKING AND  | N,7<br>RECORD P    | Y<br>URPOS | SCREEN<br>ES (YYNNNN | W<br>N) |
| DAPA_DESIGNATION_IND<br>SC: INDICATES IF THE COMMAND DAPA         |                              |                    |            |                      | E       |
| DAPA_DETECTION_CATEGORY   | DAPDETCAT                    | N, 1               | N          | SCREEN               | W       |

ATTRIBUTE REPORT

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1

DAPA DETECTION PREVIOUS NUMBER DAPDETPRE N,1 N SCREEN SC: PREVIOUS NUMBER OF DETECTIONS OF ABUSE DAPA FACILITY CODE DAPCODE C,5 N SC: UNIT IDENTIFICATION CODE OF THE FACILITY CONDUCTING THE SCREENING DAPA FACILITY STAFF NUMBER DAPSTAFNUM N, 10 N SCREEN SC: THE STAFF IDENTIFICATION NUMBER OF THE FACILITY STAFF MEMBER DAPA NAME OF ADVISOR DAPADVNAM C, 45 Y DAPA SC: NMAE/RANK OF THE COMMAND'S DRUG/ALCOHOL PROGRAM ADVISOR N DAPA PHONE DAPPHO N, 12 DAPA SC: THE DAPA'S PHONE NUMBER DAPA PREVIOUS TOXOCOLOGY IND DAPPRETX SCREEN L N W SC: INDICATES IF PREVIOUS TOXOCOLOGY DONE ON CLIENT DAPA REFERRAL AGENCY DAPREFAGC C,50 N SCREEN SC: NAME OF THE AGENCY MAKING THE REFERRAL DAPA REFERRAL CONTACT NAME DAPREFNAM C.45 SCREEN SC: NAME/RANK/TITLE OF THE PERSON MAKING THE REFERRAL DAPA REFERRAL PHONE DAPREFPHO N, 12 SCREEN SC: PHONE NUMBER OF THE REFERRING AGENCY/PERSON DAPA REFERRAL TYPE CODE DAPREFTYP N SCREEN SC: NUMERIC CODE IDENTIFYING TYPE OF REFERRAL TO DAPA

Long Comment : REFERRAL TYPE CODES:

1 - CAAC

2 - SELF

3 - ER/DETOX/TX

4 - FAMILY

5 - COMMAND UNIT

6 - DAPA

7 - CHAPLAIN

8 - MEDICAL OFFICER

9 - OTHER

| DAPA SCREEN CLIENT SIGNATURE IN SC: INDICATES IF THE CLIENT'S S |                |               | n<br>Scre | SCREEN<br>ENING FORM | W |
|---|----------------|---------------|-----------|----------------------|---|
| DAPA SCREEN COUNSELOR NAME<br>SC: NAME/RANK/TITLE OF THE SCRE   |                | C,50<br>LOR   | N         | SCREEN               | W |
| DAPA SCREEN DATE<br>SC: DATE OF THE CLIENT SCREENIN             | DAPSCRNDT<br>G | D             | Y         | SCREEN               | W |
| DAPA_SCREEN_PROGRAM_CODE<br>SC: PROGRAM_CODES: A - ALCOHOL      |                | C,1 - OBESITY | N         | SCREEN               | W |

DAPA\_SCRN\_COUNSEL\_SIGNATURE\_IND DAPCOUSIG L N SCREEN W
SC: INDICATES IF THE SCREENIG COUNSELOR'S SIGNATURE WAS OBTAINED

MEMBER CLIENT NUMBER MBRCLINUM N,7 Y MEMBER E SC: THE CASE NUMBER ASSIGNED TO A SPECIFIC MEMBER FOR TRACKING PURPOSES

Long Comment :

MEMBER CLIENT NUMBER IS THE SAME AS DAPA CLIENT NUMBER. THIS NUMBER IS USED FOR TRACKING A SPECIFIC MEMBER'S CASE AND FOR RECORD TRACKING PURPOSES. A CLIENT NUMBER IS USED INSTEAD OF THE MEMBER'S SOCIAL SECURITY NUMBER FOR REASONS OF CONFIDENTIALITY.

N MEMBER DIVISION ASSIGNED MBR DIV C,15 MEMBER E SC: THE DIVISION TO WHICH THE MEMBER IS ASSIGNED MEMBER SOCIAL SECURITY NUMBER MBRSSN N, 12 MEMBER SC: MEMBER'S SOCIAL SECURITY NUMBER FOR RECORD PURPOSES MBRWKCTR C.6 MEMBER WORKCENTER N MEMBER SC: THE WORKCENTER TO WHICH THE MEMBER IS ASSIGNED MEMBER WORKCENTER PHONE NUMBER MBRPHON N, 5 N MEMBER SC: PHONE NUMBER OF THE MEMBER'S WORKCENTER REFER CLIENT ATTITUDE REMARKS REFCLIATT C,120 N REFERRAL W SC: DESCRIPTION OF THE CLIENT'S ATTITUDE/BEHAVIOR SINCE REPORTING ABOARD REFER CLIENT COMMAND REFCLICOM C,50 N REFERRAL W SC: NAME OF THE COMMAND TO WHICH THE CLIENT IS ASSIGNED REFER CLIENT COMMAND UIC REFCLIUIC N, 7 N REFERRAL W SC: UNIT IDENTIFICATION CODE OF THE CLIENT'S COMMAND REFCLIDAPCM C,120 REFER CLIENT DAPA COMMENTS N REFERRAL W SC: COMMENTS BY THE CLIENT'S DAPA REFER CLIENT INFORMATION IND REFCLIINF N T. REFERRAL W SC: INDICATES IF REQUISITE CLIENT MILITARY/PERSONAL INFO IS PROVIDED REFER CLIENT LEADERSHIP CMNT REFCLILEDCM C,120 N SC: COMMENTS CONCERNING THE CLIENT'S LEADERSHIP ABILITY ASSESSMENT REFER CLIENT LEADERSHIP CODE REFCLILED N, 1 REFERRAL W N

#### Long Comment :

CLIENT LEADERSHIP ABILITY CODES:

- 1 POSITIVE LEADER
- 2 POTENTIAL LEADER
- 3 FOLLOWER
- 4 ANTI-NAVY
- 5 ANTI-SOCIAL

REFER CLIENT MED DOCUMENTS IND REFCLIMED L N REFERRAL W

SC: CODE TO IDENTIFY THE CLIENT'S ASSESSED LEADERSHIP ABILITY

SC: INDICATES IF PERTINENT MEDICAL DOCUMENTATION WAS DISCUSSED/INCLUDED

REFER\_CLIENT\_NUMBER REFCLIENTNA C,50 Y REFERRAL W

SC: NAME/RANK/TITLE OF CLIENT BEING REFERRED TO CAAC

REFER\_CLIENT\_PERFORMANCE\_CODE REFCLIPERCO C,1 N REFERRAL W

SC: CLIENT'S PERFORMANCE COMPARED WITH OTHERS OF EQUAL RANK/RATE

Long Comment :

MILITARY/PROFESSIONAL PERFORMANCE COMPARED TO OTHERS OF EQUAL RATE/RANK:

A - ABOVE OTHERS

E - EQUAL TO OTHERS

B - BELOW OTHERS

REFER CLIENT PERFORMANCE COMMENT REFPERCMT C,120 N REFERRAL W SC: COMENTS CONCERNING THE CLIENT'S MILITARY/PROFESSIOAL PERFORMANCE

REFER CLIENT PERFORMANCE TYPE REFERPERTYP C,1 N REFERRAL W SC: PERFORMANCE TYPES: P: PROFESSIONAL, M: MILITARY

REFER CLIENT PERSONAL TRAIT CMNT REFCLITRACM C,120 N REFERRAL W SC: COMMENT CONCERNING THE SPECIFIED CLIENT PERSONAL TRAIT

REFER\_CLIENT\_PERSONAL\_TRAIT\_CODE REFCLITRA N,2 N REFERRAL W SC: IDENTIFIES VARIOUS CLIENT PERSONAL TRAITS

Long Comment :

CLIENT PERSONAL TRAIT CODES:

- 1 HABIT OF BEING LATE
- 2 ACCEPTS AUTHORITY WELL
- 3 OBEYS MILITARY CONDUCT AND DRESS CODES
- 4 ACTS IMPULSEIVELY
- 5 APPEARS ANXIOUS, HOSTILE OR DEPRESSED
- 6 APPEARS TO USE ALCOHOL/DRUGS EXCESSIVELY
- 7 USES DRUGS/ALCOHOL ON DUTY
- 8 APPEARS TO EAT EXCESSIVELY
- 9 HAS KNOWN FAMILY/PERSONAL PROBLEMS
- 10 OTHER AS SPECIFIED

REFER CLIENT PERSONAL TRAIT IND REFCLITRAIN L N REFERRAL W SC: INDICATES IF THE CLIENT EXHIBITS THE SPECIFIED PERSONAL TRAIT

REFER CLIENT PREV TREATMENT CODE REFCLIPREVT N,1 N REFERRAL W SC: CODE TO IDENTIFY TYPE OF TREATMENT (NADSAP, ARC, ETC)

Long Comment :

PREVIOUS TREATMENT CODES:

- 1 NADSAP
- 2 CAAC
- 3 ARC
- 4-9 OTHERS AS SPECIFIED

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REFER CLIENT PREV TREATMENT DATE REFCLIPREDT D N REFERRAL W
SC: DATE OF COMPLETION OF SPECIFIED PREVIOUS TREATMENT

REFER CLIENT PREV TREATMENT IND REFCLIPRETR L N REFERRAL W SC: INDICATES IF THE CLIENT HAS RECEIVED PREVIOUS TREATMENT

REFER CLIENT RELATIONS CODE REFCLIREL C,1 N REFERRAL W SC: CODE TO DESCRIBE THE RELATION FOR THE SPECIFIED RELATION TYPE

## Long Comment :

A DESCRIPTION OF CLIENT RELATIONS WITH VARIOUS RELATION TYPES:

W - WELL

F - FAIR

P - POOR

REFER CLIENT RELATIONS COMMENTS REFRELCMT C,120 N REFERRAL W SC: COMMENTS CONCERNING CLIENT RELATIONS WITH THE SPECIFIED RELATION TYPE

REFER CLIENT RELATIONS TYPE CODE REFCLIREL N,1 N REFERRAL W SC: CODE TO IDENTIFY THE VARIOUS RELATIONS WITH THE CLIENT

## Long Comment :

RELATIONS TYPE CODES:

- 1 WITH OFFICERS
- 2 WITH PETTY OFFICERS
- 3 WITH NON-RATE PERSONS
- 4 WITH PERSONS OF THE SAME RATE/RANK
- 5 WITH PERSONS OF JUNIOR RATE/RANK
- 6 WITH OTHERS AS SPECIFIED (WIFE/PARENTS/FRIENDS/AUTHORITIES)

REFER CLIENT RETENTION RECOMMEND REFCLIRET C,50 N REFERRAL W SC: NATURE OF THE CLIENT'S COMMAND RECOMMENDATION FOR RETENTION

#### Long Comment :

CHARACTERIZATION OF THE COMMAND'S RECOMMENDATIONS FOR RETENTION:

- RECOMMENDED FOR RETENTION
- NOT RECOMMENDED BECAUSE OF POOR PAST RECORD
- NOT RECOMMENDED BECAUSE OF POOR PRESENT RECORD
- NOT RECOMMENDED BECAUSE MEMBER HAS NO DESIRE FOR CONTINUED SERVICE

REFER CLIENT SUPERVISOR COMMENTS REFCLISUPCM C,120 N REFERRAL W SC: CLIENT'S SUPERVISOR REMARKS: HOW LONG, CLIENT EFFORTS, ETC

REFER CLIENT SUPERVISOR NAME REFCLISUP C,50 N REFERRAL W SC: NAME/RANK/TITLE OF THE CLIENT'S IMMEDIATE SUPERVISOR

REFER CLIENT TAD INDICATOR REFCLITAD L N REFERRAL W SC: INDICATES IF THE CLIENT IS ON TEMPORARY ADDITIONAL ORDERS

REFER DAPA COMMAND REFERRAL W SC: NAME OF THE REFERRING DAPA'S COMMAND Author: Dan Montgomery

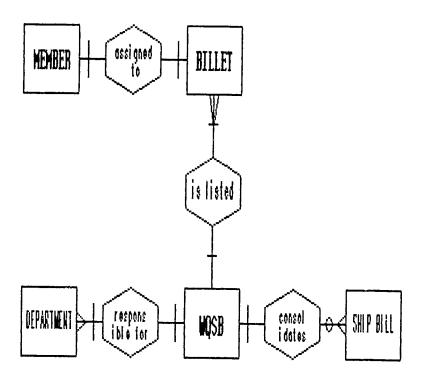
| REFER DAPA NAME<br>SC: NAME/RANK/TITLE  | REFDAPNME<br>OF THE DAPA MAKING THE P |                 | REFERRAL W |  |
|---|---------------------------------------|-----------------|------------|--|
| REFER DAPA PHONE<br>SC: PHONE NUMBER OF | REFDAPPHO<br>THE DAPA MAKING THE REFE | N,12 N<br>ERRAL | REFERRAL W |  |
| REFER DATE<br>SC: DATE OF THE SPEC      | REFDATE<br>FIFIC REFERRAL             | Y a             | REFERRAL W |  |

REFER\_PRESENTING\_PROBLEM REFPREPRO C,120 N REFERRAL W
SC: BRIEF NARRATIVE OF THE PROBLEM REQUIRING THE MEMBER'S REFERRAL TO CAAC

## APPENDIX B

## WQSB ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the WATCH, QUARTER and STATION BILL function as discussed in Chapter IV.



#### STRUCTURE REPORT FOR WQSB - VERSION 2.11

#### BILLET =

- BILLET NUMBER
- + BILLET MEMBER NAME
- + BILLET RANK ACTUAL
- + BILLET RANK ASSIGNED
- + BILLET RATE ACTUAL
- + BILLET RATE ASSIGNED
- + BILLET\_SOCIAL\_SECURITY\_NUMBER

#### DEPARTMENT =

- DEPARTMENT NAME
- + DEPARTMENT HEAD NAME
- + DEPARTMENT LOCATION
- + DEPARTMENT PHONE

#### MEMBER =

- MEMBER FIRST NAME
- + MEMBER LAST NAME
- + MEMBER DEPARTMENT ASSIGNED
- + MEMBER DIVISION ASSIGNED
- + MEMBER RANK
- + MEMBER RATE
- + MEMBER WORKCENTER ASSIGNED

#### SHIP BILL =

- BILL NAME
- + BILL NUMBER
- + BILL DUTY SECTION
- + BILL LAST UPDATED BY
- + BILL LAST UPDATED DATE
- + BILL\_MEMBER\_NAME
- + BILL\_SPECIAL\_QUALIFICATIONS
- + BILL STATION DUTY PROVIDE
- + BILL STATION NAME
- + BILL STATION NUMBER ASSIGNED
- + BILL TYPE CODE

## WQSB =

- WQSB BILLET NUMBER
- + WQSB\_WATCH\_TYPE\_CODE
- + WQSB\_BILL\_NAME
- + WQSB\_BILL\_STATION\_ASSIGNED + WQSB\_BILL\_STATION\_PROVIDE
- + WQSB\_CONDITION\_I
- + WQSB\_CONDITION\_TYPE\_CODE
- + WQSB\_DIVISION
- + WQSB\_LAST\_UPDATED\_BY\_NAME + WQSB\_LAST\_UPDATED\_DATE
- + WQSB\_NUMBER\_OF\_BILLS
- + WQSB\_RATE\_ACTUAL
- + WQSB\_RATE\_ALLOWANCE
- + WQSB\_RATE\_COMPLIMENT
- + WQSB REMARKS

ATTRIBUTE REPORT FOR WQSB - VERSION 2.11

| Attribute Name   | Alias                         | Format           | Key          | Object & S           | Type |
|--|-------------------------------|------------------|--------------|----------------------|------|
| BILLET MEMBER NAME<br>SC: THE NAM OF THE MEMBER ASSIGN   | BILNAM<br>ED TO A SPECIE      | C,45             | n<br>I in Ti | BILLET<br>HE COMMAND | E    |
| BILLET_NUMBER<br>SC: A BILLET NUMBER IS ASSIGNED         | BILNUM<br>TO EACH MEMBER      | C,10<br>R OF THE | Y<br>Crew    | BILLET               | E    |
| BILLET_RANK_ACTUAL<br>SC: THE ACTUAL RANK OF THE MAMBE   | BILRANKACT<br>R FILLING AN A  | C, 4<br>ASSIGNED | N<br>BILLET  | BILLET               | E    |
| BILLET RANK ASSIGNED<br>SC: RANK ASSIGNED BY BUPERS TO F | BILRANKASG<br>TILL A SPECIFIO | C,5<br>C BILLET  | N<br>(i.e.,  | BIJ:LET<br>E-4, O-3) | E    |

THE BUREAU OF PERSONNEL (BUPERS) INDICATES THE RANK ASSIGNED FOR EACH BILLET IN EVERY SHIP'S SPECIFIC MANNING DOCUMENT. FOR EXAMPLE, THE BILLET FOR SENIOR RADIOMAN ONBOARD A SHIP MAY ASSIGNED TO A CHIEF PETTY OFFICER RADIOMAN (RMC). ASSIGNED RANK AND AACTUAL RANK MAY DIFFER DUE TO PERSONNEL RESOURCES AVAILABLE TO FILL BILLETS.

BILLET RATE ACTUAL BILRATACT C,5 N BILLET SC: THE ACTUAL RATE THAT IS FILLING THE ASSIGNED BILLET

# Long Comment :

Long Comment :

BILLET RATE ACTUAL INDICATES THE RATING OF THE MEMBER THAT IS CURRENTLY FILLING A SPECIFIC BILLET. FOR EXAMPLE, A SPECIFIC BILLET MAY HAVE AN ELCTRONICS TECHNICIAN (ET) ASSIGNED. THIS MAY BECOME IMPORTANT WHEN THE RATE ASSIGNED AND THE ACTUAL RATE ARE NOT THE SAME. THE COMMAND MUST ENSURE THAT EQUIVALENT QUALIFICATIONS ARE HELD BY THE MEMBER FILLING A SPECIFIC RATE.

BILLET RATE ASSIGNED BILRATASG C,15 N BILLET SC: THE ASSIGNED RATE TO FILL A SPECIFIC BILLET IN THE SHIP

## Long Comment :

BILLET RATE ASSIGNED AND BILLET RATE ACTUAL MAY NOT BE THE SAME. FOR EXAMPLE, THE MANNING DOCUMENT MAY REQUIRE AN ENGINEMAN FOR A SPECIFIC BILLET; BUT THAT BILLET IS FILLED BY A QUALIFIED MACHINIST MATE.

BILLET SOCIAL SECURITY NUMBER BILSSN N,12 N BILLET E SC: THE SOCAIL SECURITY NUMBER OF THE MEMBER FILLING A SPECIFIC BILLET

BILL DUTY SECTION BILDTYSEC N,1 N SHIP BIL E SC: STATIONS, AS ASSIGNED BY DUTY SECTION, MUST BE SPECIFIED

#### Long Comment :

INFORT STATION ASSIGNMENTS, FOR EXAMPLE MUST BE ASSIGNED, AND CAN BE ASSIGNED ON A ROTATIONAL BASIS BY DUTY SECTION. THE FOLLOWING ILLUS TRATES THIS CONCEPT:

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INPORT DUTY SECTION NUMBER

ONE TWO THREE FOUR

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STATION

DUTY DEPT HEAD

DUTY CORPSMAN

DUTY GUNNER

DUTY MACHINIST

DUTY WELDER

DUTY YEOMAN

BILL\_LAST\_UPDATED\_BY BILUPDTNAM C, 25 N SHIP BIL E

SC: NAME/RANK OF THE PERSON WHO LAST UPDATED THE SPECIFIED BILL

BILL LAST UPDATED DATE BILDT D N SHIP BIL E

SC: DATE WHEN THE BILL WAS LAST UPDATED/REVIEWED/APPROVED

Long Comment :

SHIP'S BILLS HAVE A REQUISITE REVIEW/APPROVAL PERIODICITY

DEPENDING ON THE FORMAT OF THEIR PROMULGATION: INSTRUCTIONS: ANNUAL/RELIEF OF COMMANDING OFFICER/AS NECESSARY

NOTICES: ANNUAL/THE PERIOD SPECIFIED ON THE NOTICE COVER PAGE

RELIEF OF THE COMMANDING OFFICER

NOTES: ANNUALLY/THE SPECIFIED PERIOD ON THE COVER OF THE MOTE

BILL\_MEMBER\_NAME BILMEMNAM C, 25 N SHIP BIL E

SC: THE NAME OF THE MEMBER ASSIGNED TO A SPECIFIED STATION, IF NECESSARY

BILL\_NAME BILNAM C,45 Y SHIP BIL E

SC: THE NAME OF THE SPECIFIEC BILL (ABANDON SHIP, AVIATION, ETC)

Long Comment :

THE SHIP'S BILL NAME WILL BE REFLECTED ON THE WATCH, QUARTER AND STATION BILL (WQSB) IN THE FOLLOWING FORMAT: STATION/PROVIDE

THE SPECIFIC STATIONS AND DUTIES COME FROM THE FOLLOWING BILLS.

THE LIST IS REPRESENTATIVE (FROM THE SHIP'S ORGANIZATION / REGULATION

MANUAL - SORM), AND NOT COMPLETE

ADMINISTRATIVE OPERATIONAL

BERTHING AND LOCKER

SECURITY BILL

VISIT SHIP

GENERAL VISITING
UNIT SECURITY

SECURITY WATCH

PERSONNEL RECALL

LIFEBOAT BILL COLD WEATHER

UNDERWAY REPLENISHMENT

RESCUE AND ASSISSTANCE

EMERGENCY TOWING

FLICHT OPERATIONS

SEA AND ANCHOR

EMERGENCY SPECIAL

MAN OVERBOARD ANTI-SNEAK/SWIMMER ATTACK GENERAL EMERGENCY CIVILIAN EVACUATION

AIRCRAFT CRASH/RESCUE PRISONERS OF WAR

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BILL NUMBER BILNUM N, 6 Y SHIP BIL E SC: THE SSIC NUMBER FROM THE SSIC MANUAL FOR FILING/TRACKING PURPOSES BILL SPECIAL QUALIFICATIONS BILSPECQUAL C,50 N SHIP BIL E SC: SPECIAL QUALIFICATIONS, AS REQUIRED FOR A SPECIFIED STATION (I.E.DIVER) BILL STATION DUTY PROVIDE BILSTAPRO C, 25 N SHIP BIL E SC: THE SPECIFIC DUTIES ASSIGNED TO A GIVEN STATION (SEE COMMENTS) Long Comment : A GIVEN STATION, FOR EXAMPLE A FIRE STATION, HAS SEVERAL SPECIFIC DUTIES TO BE ASSIGNED: PLUGMAN/NOZZLEMAN/HOSEHANDLER/RUNNER-MESSENGER/PHONETALKER, ETC AN UNDERWAY REPLENISHMENT STATION HAS SEVERAL SPECIFIC DUTIES: RIG CAPTAIN/SAFETY OFFICER/LINEHANDLERS/PHONETALKER/RIG ASSISSTANT SIGNALMAN/GUNNER/CORPSMAN, ETC C, 25 BILL STATION NAME BILSTA N SHIP BIL E SC: EACH BILL SPECIFIES STATIONS THAT MUST BE MANNED BILL STATION NUMBER ASSIGNED BILSTANUM N, 2 N SHIP BIL E SC: VARIOUS BILLS REQUIRE A MINIMUM/MAXIMUM NUMBER OF PERSONNEL ASSIGNED Long Comment : SOME SHIP'S BILLS REQUIRE THAT SPECIFIC STATIONS HAVE A MINIMUM/MAXIMUM NUMBER OF PERSONNEL ASSIGNED FOR SAFETY PURPOSES. AS AN EXAMPLE, UNDERWAY REPLENISHMENT STATIONS REQUIRE A MINIMUM OF 15 LINEHANDLERS, HOWEVER A PERSONNEL TRANSFER STATION (TRANSFER BY HIGHWIRE) REQUIRES A MINIMUM OF 25 LINEHANDLERS. BILL TYPE CODE BILLTYP N SHIP BIL E C,1 SC: BILL TYPFS: A-ADMIN, O-OPERATIONAL, S-SPECIAL, E-EMERGENCY DEPARTMENT HEAD NAME DEPTHDNAM DEPT C, 45 N SC: NAME OF THE OFFICER ASSIGNED AS HEAD OF DEPARTMENT (DEPT HEAD) DEPARTMENT LOCATION DEPTLOC C, 25 DEPT GC: LOCATION OF THE DEPARTMENTAL OFFICE DEPARTMENT NAME DEPTNAM C,25 Y DEPT SC. NAME OF A SPECIFIC DEPARTMENT N,7 N DEPARTMENT PHONE DEPTPHON DEPT E SC: PHONE NUMBER OF THE DEPARTMENT OFFICE MEMBER DEPARTMENT ASSIGNED MBRDEPT C,15 N MEMBER Τ.

SC: NAME OF THE DEPARTMENT TOWHICH THE MEMBER IS ASSIGNED

SC: THE DIVISION TO WHICH A SPECIFIC MEMEBR IS ASSIGNED

SC: FIRST NAME OF A MEMBER ASSIGNED TO A BILLET

MBR DIV

MBRFIRNAM

C, 15

C,25

MEMBER

MEMBER

E

MEMBER DIVISION ASSIGNED

MEMBER FIRST NAME

MEMBER LAST NAME

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C, 25

Y

MEMBER

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SC: LAST NAME OF THE MEMBER ASSSIGNED TO A BILLET MEMBER RANK MBRRANK MEMBER SC: THE MEMBER'S ACTUAL RANK (i.e., E-4, E-3, O-2) MEMBER RATE C, 25 MBRRATE MEMBER SC: THE MEMBER'S ACTUAL RATE (i.e., BM, MM, ET) MEMBER WORKCENTER ASSIGNED MBRWKCTR N C.5 SC: THE WORKCENTER TO WHICH THE MEMBER IS ASSIGNED IN THE COMMAND WOSB BILLET NUMBER WOSBBILNUM N, 12 Y WOSB ₩. SC: SHIP'S BILLETS ARE ASSIGNED BY NUMBER SEQUENCE FOR TRACKING/REPORTING WOSB BILL NAME WOSBBILNAM C, 25 WOSB N SC: THE SPECIFIC NAME OF A SHIP'S BILL COMPRISING THE WQSB

MBRLASNAM

Long Comment :

THE WATCH, QUARTER AND STATION BILL IS THE SINGULAR DOCUMENT THAT SUMMARIZES STATION ASSIGNMENTS AND DUTIES FOR MEMBERS OF THE CREW. EACH SHIP'S BILL IS PROMULGATED SEPERATELY BY VARIOUS DEPARTMENTS WITHIN THE COMMAND. ONCE THE BILLS ARE APPROVED, THE REQUISITE STATIONS/DUTIES ARE IDENTIFIED AND ASSIGNED TO SPECIFIC MEMBERS OF THE CREW, EITHER BY DEPARTMENT OR BY DIVISION.

FOR EXAMPLE, THE BOAT OFFICER PROMULGATES THE LIFEBOAT AND BOAT BILL, ASSIGNING MEMBERS BY NAME TO EACH SEAT IN THE SHIP'S LIFEBOATS/RAFTS. THE BOAT BILL REQUIRES A GUNNER FROM WEAPONS DEPT, A CORPSMAN FROM MEDICAL DEPT, A BOAT ENGINEER FROM ENGINEERING DEPT AND VARIOUS OTHER STATIONS THAT CAN BE FILLED FROM ANY DEPT/DIVISION.

BILL REPEATING GROUP:
WQSB\_BILL\_STATION\_ASSIGNED
WQSB\_BILL\_STATION\_PROVIDE

| WQSB_BILL_STATION_ASSIGNED<br>SC: THE STATION SPECIFIED BY A SE     | WQSBBILLSTA C,2                       | 25 IT<br>CH THE MEMBE | WQSB<br>ER IS ASSIG | E<br>NED |
|---|---------------------------------------|-----------------------|---------------------|----------|
| WQSB_BILL_STATION_PROVIDE<br>SC: STATION DUTIES ASSIGNED TO A       | WQSBBILLSTA C, 2<br>MEMBER AS SPECIFI | 25 N<br>IED BY A SH   | WQSB<br>IP'S BILL   | E        |
| WOSB CONDITION I<br>SC: THE MEMBER'S ASSIGNED STATION               | WQSBCON1 C,2<br>N FOR CONDITION I     | 25 n<br>(GENERAL QU   | WQSB<br>JARTERS)    | E        |
| WOSB_CONDITION_TYPE_CODE<br>SC: SPECIFIES THE WATCH CONDITION       | WQSBCONDTYP N, 1                      | l N<br>3 OR 4)        | WQSB                | E        |
| WQSB DIVISION SC: $\overline{\text{D}}$ IVISION ASSIGNMENTS FOR THE | WQSBDIV C,2<br>WATCH,QUARTER & 8      | 25 N<br>STATIO BILL   | WQSB<br>(WQSB)      | E        |
| WQSB_LAST_UPDATED_BY_NAME<br>SC: NAME/RANK/TITLE OF THE LAST I      | WQSBUPNAM C,4                         | 45 n<br>The Wosb      | WQSB                | E        |

| 9/ | 1 | 5 | / | 1 | 9 | 9 | 1 |
|----|---|---|---|---|---|---|---|
| 12 | : | 2 | 9 |   | P | M |   |

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|    | ~~ | _ |
|----|----|---|
| pa | ᇄᆫ | J |

| WQSB LAST UPDATED DATE<br>SC: DATE WHEN WQSB WAS LAST UPDA | WQSBDT<br>TED                | D                | N          | WQSB              | E |
|--|------------------------------|------------------|------------|-------------------|---|
| WQSB_NUMBER_OF_BILLS<br>SC: INDICATES A PEPEATING GROUP    | WQSBNUMBILL                  | N, 2             | N          | WQSB              | E |
| WQSB RATE ACTUAL<br>SC: THE ACTUAL NUMBER OF THE SPE       | WQSBRATACT<br>CIFIED RATE ON | N, 2<br>BOARD    | Ń          | WQSB              | E |
| WQSB_RATE_ALLOWANCE<br>SC: THE NUMBER OF PERSONNEL OF T    | WQSBRATALW<br>HE SPECIFIED R | N,2<br>ATE ALLOW | N<br>ED BY | WQSB<br>NMPC      | E |
| WQSB_RATE_COMPLIMENT<br>SC: THE NUMBER OF THE SPECIFIED    | WQSBRATCMP<br>RATE PLANNED F | N,2<br>OR MAXIMU | n<br>M MAN | WQSB<br>NING      | E |
| WQSB REMARKS<br>SC: COMMENTS PERTAINING TO THE A           | WQSBRMKS<br>SSIGNED MEMBER   | C,25<br>(LEAVE/I | n<br>AD/SI | WQSB<br>Q/UA,ETC) | E |
| WQSB WATCH TYPE CODE<br>SC: SPECIFIES THE TYPE OF WATCH:   | WQSBWATCHTY<br>ATSEA OR INPO | C,6              | Y          | WQSB              | E |

RULE REPORT

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RULE REPORT FOR WQSB - VERSION 2.11

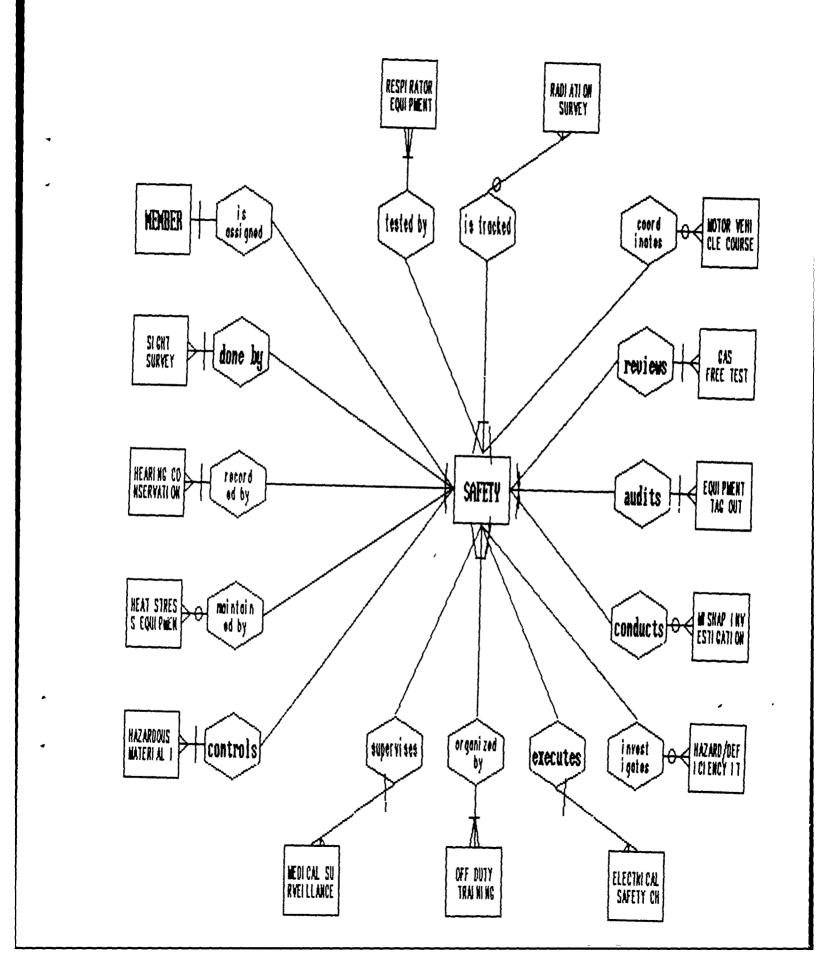
Rules for WQSB

IF WQSB\_NUMBER\_OF\_BILLS
> 1
THEN REPEAT WQSB BILL GROUP

## APPENDIX C

## SAFETY ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the SAFETY function as discussed in Chapter IV.



#### STRUCTURE REPORT FOR SAFETY - VERSION 2.11

#### ELECTRICAL SAFETY CHECKS =

- ELEC CHECK DATE
- + ELEC CHECK TYPE
- + ELEC AUTHORIZATION DATE
- + ELEC AUTHORIZATION NAME
- + ELEC CHECK DUE DATE
- + ELEC CHECK ELECTRICIAN NAME
- + ELEC EQUIPMENT WORKCENTER NAME
- + ELEC EQUIP DIVISION NAME
- + ELEC EQUIP ITEM NAME
- + ELEC EQUIP ITEM SERIAL NUMBER

#### EQUIPMENT TAG OUT =

TAG DEPARTMENT SEQUENCE NUMBER

- + TAG EQUIPMENT NAME
- + TAG TYPE CODE
- + TAG ACTION TYPE AUTHORITY NAME
- + TAG ACTION TYPE CODE
- + TAG ACTION TYPE DATE
- + TAG DEPARTMENT NAME
- + TAG DIVISION NAME
- + TAG FIRST PERSON NAME
- + TAG NUMBER OF TAGS
- + TAG SECOND PERSON NAME
- + TAG SYSTEM EFFECTED
- + TAG TYPE HAZARD
- + TAG TYPE INSTRUCTIONS

## GAS FREE TEST =

- GAS FREE TEST DATE
- + GAS FREE TEST TIME + GAS FREE COMPARTMENT NAME
- + GAS\_FREE\_COMPARTMENT\_NUMBER

- + GAS\_FREE\_COMPARTMENT NUMBER
  + GAS\_FREE\_DESIGNATION\_INDICATOR
  + GAS\_FREE\_ENGINEER\_CERT\_DATE
  + GAS\_FREE\_ENGINEER\_DIVISION
  + GAS\_FREE\_ENTRY\_TYPE
  + GAS\_FREE\_EQUIPMENT\_NAME
  + GAS\_FREE\_EQUIPMENT\_NAME
  + GAS\_FREE\_TEST\_ACTIONS
  + GAS\_FREE\_TEST\_EXPIRATION\_DATE
  + GAS\_FREE\_TEST\_EXPIRATION\_TIME
  + GAS\_FREE\_TEST\_EXPIRATION\_TIME
  + GAS\_FREE\_TEST\_TYPE
  + GAS\_FREE\_TEST\_TYPE
  + GAS\_FREE\_WORK\_TYPE

- + GAS\_FREE\_WORK\_TYPE

#### HAZARD/DEFICIENCY ITEM =

HAZARD\_SEQUENCE\_NUMBER

- + HAZARD COMPARTMENT DIVISION
- + HAZARD\_COMPARTMENT\_FUNCTION
- + HAZARD\_COMPARTMENT\_NAME
- + HAZARD COMPARTMENT NUMBER

- + HAZARD COMPARTMENT WORKCENTER

- + HAZARD\_COMPARTMENT\_WORKCENTER
  + HAZARD\_CSMP\_ENTRY\_INDICATOR
  + HAZARD\_CSMP\_NUMBER
  + HAZARD\_IDENTIFICATION\_CODE
  + HAZARD\_INSPECTION\_DATE
  + HAZARD\_INSPECTOR\_NAME
  + HAZARD\_MISHAP\_PROBABILITY\_CODE
  + HAZARD\_REPORT\_DATE
  + HAZARD\_REPORT\_DATE

- + HAZARD REPORT DEPARTMENT\_CODE + HAZARD REPORT LOCATION + HAZARD REPORT ORIGINATOR NAME + HAZARD REPORT TIME + HAZARD RISK ASSESSMENT\_CODE

- + HAZARD SEVERITY CATEGORY CODE

#### HAZARDOUS MATERIAL ITEM =

HAZMAT\_ITEM\_NUMBER

- + HAZMAT\_NSN
- + HAZMAT\_CHEMICAL\_NAME
- + HAZMAT\_CHRONIC\_HAZARD\_IND
- + HAZMAT\_CONTAINER\_SIZE
- + HAZMAT\_CONTAINER\_TYPE
- + HAZMAT\_DEPT\_CODE
- + HAZMAT ESTIMATED USAGE
- + HAZMAT\_LOCKER LOCATION
- + HAZMAT MANUFACTURER DESCRIPTION
- + HAZMAT\_METHOD\_OF\_APPLICATION
- + HAZMAT\_QUANTITY\_ON\_HAND
- + HAZMAT SHELF LIFE
- + HAZMAT SPECIFICATION NUMBER
- + HAZMAT TRADE NAME
- + PERSONAL PROTECTIVE EQUIP CODE
- + PERSONAL PROTECTIVE EQUIP IND

## HEARING CONSERVATION SURVEY =

HEARING COMPARTMENT LOCATION

- + HEARING SURVEY LAST DATE
- + HEARING NOISE SOURCE CODE
- + HEARING SURVEY COMPARTMENT
- + HEARING SURVEY INDICATOR
- + HEARING SURVEY NAME
- + HEARING SURVEY NOISE LEVEL
- + HEARING SURVEY ORGANIZATION

#### HEAT STRESS EQUIPMENT =

- HEAT STRESS EQUIPMENT TYPE
- + HEAT STRESS EQUIP CAL DATE
- + HEAT STRESS EQUIP RECAL DATE
- + HEAT STRESS EQUIP RECAL IND
- + HEAT STRESS EQUIP TYPE QUANTITY

#### MEDICAL SURVEILLANCE EVAL =

MED SURVEIL EVAL DATE

- + MED SURVEIL TYPE
- + MED SURVEIL AUTH COMMAND
- + MED SURVEIL COMMAND DURATION

- + MED SURVEIL COMMAND NAME
- + MED\_SURVEIL\_COMMAND\_UNIT\_ID\_CODE + MED\_SURVEIL\_EVAL\_AUTHORITY\_NAME + MED\_SURVEIL\_EVAL\_COMMENTS + MED\_SURVEIL\_EVAL\_INDICATOR

- + MED\_SURVEIL\_JOB\_DESCRIPTION + MED\_SURVEIL\_JOB\_PROCESS
- + MED SURVEIL PROGRAM INDICATOR

#### MEMBER =

#### SAFETY MEMBER NAME

- + SAFETY MEMBER DIVISION
- + SAFETY MEMBER DIVISION PHONE
- + SAFETY MEMBER SSN

#### MISHAP INVESTIGATION =

- MISHAP DATE
- + MISHAP TIME
- + MISHAP CATEGORY
- + MISHAP CAUSE
- + MISHAP DEPARTMENT
- + MISHAP\_DESCRIPTION
- + MISHAP\_DIVISION
- + MISHAP EXTERNAL REPORT IND
- + MISHAP EXTERNAL REPORT NUMBER
- + MISHAP LOCATION
- + MISHAP PHOTO INDICATOR
- + MISHAP REPORT DATE
- + MISHAP REPORT INDICATOR
- + MISHAP REPORT OFFICER
- + MISHAP SEQUENCE NUMBER
- + MISHAP SUPERVISOR NAME
- + MISHAP WITNESS DIVISION
- + MISHAP WITNESS NAME
- + MISHAP WITNESS NUMBER

## MOTOR VEHICLE COURSE =

#### MOTOR VEH TYPE

- + MOTOR VEH COORDINATOR NAME
- + MOTOR VEH LICENSE INDICATOR
- + MOTOR VEH SAFETY COURSE DATE
- + MOTOR VEH SAFETY COURSE DUE DATE
- + MOTOR VEH SAFETY COURSE IND
- + MOTOR VEH SAFETY COURSE NAME

#### OFF DUTY TRAINING =

#### OFF DUTY SAFETY TYPE

- + OFF DUTY COORDINATOR NAME
- + OFF DUTY TRAINING TOPIC
- + OFF DUTY TRAINING TOPIC DATE
- + OFF DUTY TYPE TRAINING IND

## RADIATION SURVEY =

#### RADIATION SURVEY DATE

- + RADIATION SURVEY TYPE
- + RADIATION PROTECT MED SCREEN IND

- + RADIATION SURVEY NAME
- + RADIATION SURVEY ORGANIZATION
- + RADIATION TYPE
- + RADIATION TYPE CODE

## RESPIRATOR EQUIPMENT =

EQUIP FIT TEST DATE + RESPIRATOR TYPE

- + EQUIPMENT FIT TEST TYPE + RESPIRATOR INDICATOR + RESPIRATOR TYPE DESCRIPTION + RESPIRATOR USER CONDITION CODE + SCREEN EXAM DATE

#### SAFETY =

- SAFETY\_OFFICER\_NAME + SAFETY\_OFFICER\_PHONE + SAFETY\_OFFICER\_PHONE

#### SIGHT SURVEY =

- SIGHT SPACE LOCATION
  + SIGHT SURVEY DATE
  + SIGHT HAZARD TYPE
  + SIGHT SURVEY COMMENTS
- + SIGHT\_SURVEY\_DUE\_DATE

ATTRIBUTE REPORT FOR SAFETY - VERSION 2.11

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| ATTRIBUTE REPORT FOR SAFETY - VERSION 2.11   |          |
|--|----------|
| Attribute Name Alias Format Key Object & Towns | уре<br>  |
| ELEC AUTHORIZATION DATE ELECAUTHDAT D N ELECSAFE SC: DATE THE SPECIFIED ITEM WAS AUTHORIZED FOR USE ONBOARD SHIP   | E        |
| ELEC AUTHORIZATION NAME ELECAUTHNAM C,50 N ELECSAFE SC: NAME/RANK OF THE PERSON AUTHORIZING THE ITEM FOR USE ONBOARD SHIP  | E        |
| ELEC CHECK DATE ELECCHECKDA D Y ELECSAFE SC: DATE THE SPECIFIED ITEM WAS SAFETY CHECKED FOR USE ONBOARD SHIP   | E        |
| ELEC CHECK DUE DATE ELECCHKDU D N ELECSAFE SC: DATE FOR THE NEXT SAFETY CHECK OF THE SPECIFIED ITEM  | E        |
| ELEC CHECK ELECTRICIAN NAME ELECCHECKNA C,45 N ELECSAFE SC: NAME/RANK OF PERSON SAFETY CHECKING THE SPECIFIED ITEM FOR USE   | E        |
| ELEC_CHECK_TYPE ELECCHKTYPE C,50 Y ELECSAFE SC: THE TYPE OF SAFETY CHECK CONDUCTED (SELECTED, RELATED, HABITABILITY, ET  | E<br>(C) |
| ELEC_EQUIPMENT_WORKCENTER_NAME ELECEQUIPWC C,25 N ELECSAFE SC: THE WORKCENTER ASSIGNED RESPONSIBILITY FOR THE SPECIFIED ITEM   | E        |
| ELEC_EQUIP_DIVISION_NAME ELECEQUIPDI C,25 N ELECSAFE SC: DIVISION ASSIGNED RESPONSIBILITY FOR THE SPECIFIED ITEM   | E        |
| ELEC_EQUIP ITEM NAME ELECEQUIPNA C,50 N ELECSAFE SC: NAME/MAKE/MODEL FOR THE SPECIFIED EQUIPMENT ITEM  | E        |
| ELEC_EQUIP_ITEM_SERIAL_NUMBER ELECEQUIPSE N,15 N ELECSAFE SC: SERIAL_NUMBER OF THE SPECIFIED ITEM  | E        |
| EQUIPMENT FIT TEST TYPE EQUIPFITTES C,25 N RESPIRAT SC: THE TYPE OF RESPIRATOR FIT TEST  | E        |
| Long Comment: RESPIRATOR FIT TEST TYPES: BANANA OIL IRRITANTS SACHARIN   |          |
| EQUIP_FIT_TEST_DATE EQFITTESTDT D Y RESPIRAT<br>SC: DATE OF THE SPECIFIED FIT TEST   | E        |
| GAS_FREE_COMPARTMENT_NAME GASFRCMPT C,50 N GAS FREE SC: BEING CERTIFIEDE COMPARTMENT   | E        |
| GAS_FREE_COMPARTMENT_NUMBER GASFRCMPTNU N,12 N GAS FREE<br>SC: NUMBER DESIGNATION OF THE COMPARTMENT BEING CERTIFIED   | E        |

GAS\_FREE\_DESIGNATION\_INDICATOR GAFRDESIND L N GAS FREE E SC: INDICATES IF THE SPECIFIED MEMBER IS CURRENTLY DESIGNATED IN WRITING

GAS FREE ENGINEER CERT DATE GASFRCERTDT D N GAS FREE E SC: DATE THE SPECIFIED GAS FREE ENGINEER WAS CERTIFIED Long Comment: GAS FREE ENGINEERS MUST BE DESIGNATED IN WRITING BY THE COMMANDING OFFICER AS CERTIFIED TO PERFORM DUTIES AS GAS FREE ENGINEER. GAS FREE ENGINEER DIVISION GASFRENGDIV C,25 N GAS FREE E SC: DIVISION TO WHICH THE SPECIFIED GAS FREE ENGINEER IS ASSIGNED GAS FREE ENGINEER NAME GASFRENGNAM C, 25 GAS FREE E N SC: NAME TRANK OF THE PERSON CERTIFIED AS GAS FREE ENGINEER GAS FREE ENTRY TYPE GASFRENTTYP C,50 N GAS FREE E SC: BRIEF DESCRIPTION OF THE REQUIREMENTS FOR ENTRY TO THE EFFECTED SPACE GAS FREE EQUIPMENT NAME GASFREQUPNA C,50 GAS FREE E SC: NAME/MAKE/MODEL OF THE SPECIFIED GAS FREE TEST EQUIPMENT GAS FREE EQUIPMENT SERIAL NUMBER GASFREQUIPS N, 15 N GAS FREE E SC: SERIAL NUMBER OF THE SPECIFIC TEST EQIPMENT ITEM GAS FREE TEST ACTIONS GASFRTESACT C,120 N GAS FREE E SC: BRIEF DESCRIPTION OF THE ACTIONS TAKEN DURING THE SPECIFIED TEST GAS FREE TEST DATE GASFREEDT D Y GAS FREE E SC: DATE OF THE GAS FREE TEST GAS FREE TEST EXPIRATION DATE GASFREXPDT D N GAS FREE E SC: DATE OF EXPIRATION OF THE GAS FREE/HOT WORK CERTIFICATION GAS FREE TEST EXPIRATION TIME GASFREXPTIM N.4 N GAS FREE E SC: TIME OF EXPIRATION OF THE GAS FREE/HOT WORK CERTIFICATIN GAS FREE TEST INSTRUCTIONS GASFRTESTIN C,120 N GAS FREE E SC: INSTRUCTIONS PERTAINING TO THE SPECIFIED GAS FREE CERTIFICATION GAS FREE TEST TIME Y GASFREETIME T GAS FREE E SC: TIME (IN 24 HOUR FORMAT) OF THE GAS FREE TEST GAS FREE TEST TYPE GASFRIESTIY C, 25 N GAS FREE E SC: TYPES OF TESTS ARE: HOT WORK AUTHORIZATION, GAS FREE CERTIFICATION GAS FREE WORK TYPE GASFRWKTYP C,50 N GAS FREE E SC: BRIEF DESCRIPTION OF THE TYPE OF WORK BEING DONE IN THE EFFECTED SPACE HAZARD COMPARTMENT DIVISION HAZCMPTDIV C,25 N HAZ/DEFC E SC: DIVISION RESPONSIBLE FOR THE COMPARTMENT IDENTIFIED HAZARD COMPARTMENT FUNCTION C,79 HAZCMPTFUN HAZ/DEFC E N SC: A BRIEF DESCRIPTION OF THE FUNCTION OF THE COMPARTMENT HAZARD COMPARTMENT NAME HAZCMPT N HAZ/DEFC E

SC: NAME OF THE COMPARTMENT WITH AN IDENTIFIED HAZARD

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HAZARD COMPARTMENT NUMBER HAZCMPTNUM N, 12 N HAZ/DEFC E SC: THE COMPARTMENT NUMBER WITH THE IDENTIFIED HAZARD

HAZARD COMPARTMENT WORKCENTER HAZCMPTWC C,10 N HAZ/DEFC E SC: THE WORKCENTER WITHIN A DIVISION RESPONSIBLE FOR THE COMPARTMENT

HAZARD CSMP ENTRY INDICATOR HAZCSMPIND L N HAZ/DEFC E SC: INDICATES REQUIRED ENTRY INTO THE CONSOLIDATED SHIPS MAINTENACE PROGRA

HAZARD CSMP NUMBER HAZCSMPNUM N, 10 N HAZ/DEFC E SC: THE CSMP NUMBER ASSIGNED TO THE HAZARD ITEM FOR TRACKING PURPOSES

HAZID N HAZARD IDENTIFICATION CODE N, 2 HAZ/DEFC E SC: IDENTIFICATION CODE NUMBER TO IDENTIFY THE SPECIFIC HAZARD/DEFICIENCY

#### Long Comment :

HAZARD/DEFT.CIENCY CODES:

- 1. ASBESTOS
- FLAMMABLE MATERIALS
- 3. CORROSIVE MATERIALS
- 4. AEROSOL CONTAINERS
- 5. NOISE
- 6. RESPIRATORY PROTECTION
- 7. IONIZING/NON-IONIZING RADIATION
- 8. MACHINERY/TOOLS/LINES/BOATS/GROUND TACKLE
- 9. HEAT STRESS 10. TOXIC MATERIALS
- 11. OXIDIZING MATERIALS
- 12. COMPRESSED GASES
- 13. EYE HAZARDS
- 14. ELECTRICAL SAFETY
- 15. IMPROPER/MISSING TAG-OUTS
- 16. MISSING/DAMAGED PERSONAL PROTECTIVE EQUIPMENT
- 17-99. RESERVED FOR FUTURE USE

HAZARD INSPECTION DATE HAZINSPDT D HAZ/DEFC E N SC: DATE OF THE LAST COMPARTMENT HAZARD/DEFICIENCY INSPECTION

HAZARD INSPECTOR NAME HAZINSPNAM C, 25 N HAZ/DEFC E SC: NAME AND TITLE OF THE INSPECTOR

HAZARD MISHAP PROBABILITY CODE HAZMISPROB C,1 N HAZ/DEFC E SC: CODE TO IDENTIFY THE PROBABILITY THE POTENTIAL FOR A RESULTING MISHAP

#### Long Comment :

MISHAP PROBABILITY: THE PROBABILITY THAT A HAZARD WILL RESULT IN A MISHAP BASED ON AN ASSESSMENT OF FACTORS SUCH AS LOCATION, EXPOSURE IN TERMS OF CYCLE HOURS OF OPERATION, AND EFFECTED POPULATION. MISHAP PROBABILITY SHALL BE ASSIGNED AN ARABIC LETTER CODE ACCORDING TO THE FOLLOWING CRITERIA:

- A LIKELY TO OCCUR IMMEDIATELY OR WITHIN A SHORT PERIOD OF TIME
- B PROBABLY WILL OCCUP. IN TIME
- C MAY OCCUR IN TIME

#### D - UNLIKELY TO OCCUR

| HAZARD REPORT DATE            | HAZREPDAT  | D | N | HAZ/DEFC | E |
|-------------------------------|------------|---|---|----------|---|
| SC: DATE THE HAZARD WAS FIRST | DISCOVERED |   |   |          |   |

HAZARD REPORT DEPARTMENT CODE HAZREPDEP C,4 N HAZ/DEFC E SC: IDENTIFIES THE DEPARTMENT RESPONSIBILTY FOR THE HAZARD ITEM

HAZARD REPORT LOCATION HAZREPLOC C,50 N HAZ/DEFC E SC: DESCRIPTION OF THE LOCATION OF THE HAZARD BEING REPORTED

HAZARD REPORT ORIGINATOR NAME HAZREPORIG C,50 N HAZ/DEFC E SC: NAME/RANK/TITLE OF PERSON INITIATING HAZARD REPORT

HAZARD REPORT TIME HAZREPTIM N, 4 N HAZ/DEFC E

SC: TIME THE HAZARD WAS FIRST DISCOVERED

HAZARD RISK ASSESSMENT CODE KAZRAC N,1 N HAZ/DEFC E SC: EACH IDENTIFIED HAZARD SHALL BE ASSIGNED A RISK ASSESSMENT CODE

#### Long Comment :

THE RISK ASSESSMENT CODE REPRESENTS THE DEGRE OF RISK ASSOCIATED WITH THE DEFICIENCY AND COMBINES THE ELEMENTS OF HAZARD SEVERITY AND MISHAP PROBABILITY. USING THE MATRIX SHOWN BELOW, THE RAC IS EXPRESSED AS A SINGLE NUMERICAL DIGIT THAT CAN BE USED TO HELP DETERMINE HAZARD ABATEMENT PRIORITIES.

| HAZARD SEVERITY | MISHAP |   | PROBABILITY |   |  |
|-----------------|--------|---|-------------|---|--|
| CATEGORY        | A      | В | С           | D |  |
| 1               | 1      | 1 | 2           | 3 |  |
| 2               | 1      | 2 | 3           | 4 |  |
| 3               | 2      | 3 | 4           | 5 |  |
| 4               | 3      | 4 | 5           | 5 |  |

RISK ASSESSMENT CODES: 1 - CRITICAL

2 - SERIOUS

3 - MODERATE

4 - MINOR

5 - NEGLIGIBLE

HAZARD SEQUENCE NUMBER HAZNUM N,5 Y HAZ/DEFC E SC: SEQUENTIAL NUMBER FOR TRACKING PURFOSES (FORMAT: YYNNN)

HAZARD SEVERITY CATEGORY CODE HAZSEVCAT N,1 N HAZ/DEFC E SC: IDENTIFIES THE HAZARD SEVERITY CATEGORY OF THE NOTED ITEM

#### Long Comment :

THE HAZARD SEVERITY IS AN ASSESSMENT OF THE WORST POTENTIAL CONSEQUENCE, DEFINED BY DEGREE OF INJURY, OCCUPATIONAL ILLNESS OR PROPERTY DAMAGE WHICH IS LIKELY TO OCCUR AS A RESULT OF A DEFICIENCY. HAZARD SEVERITY CATEGORIES SHALL BE ASSIGNED A NUMERIC CODE ACCORDING TO THE FOLLOWING CRITERIA.

## HAZARD SEVERITY CATEGORY:

- 1 CATASTROPHIC: THE HAZARD MAY CAUSE DEATH, OR LOSS OF A FACILITY
- 2 CRITICAL: MAY CAUSE SEVERE INJURY, SEVERE OCCUPATIONAL ILLNESS OR MAJOR PROPERTY DAMAGE
- 3 MARGINAL: MAY CAUSE MINOR INJURY, MINOR OCCUPATIONAL ILLNESS OR MINOR PROPERTY DAMAGE
- 4 NEGLIGIBLE: PROBABLY WOULD NOT EFFECT PERSONNEL SAFETY OR HEALTH, BUT IS IN VIOLATION OF A NAVOSH STANDARD

| HAZMAT CHEMICAL NAME<br>SC: THE CHEMICAL NAME OF THE HAZ            | HAZCHEMNAM<br>ARDOUS MATERIA  | C,50<br>L         | N          | HAZMAT              | E |
|---|-------------------------------|-------------------|------------|---------------------|---|
| HAZMAT CHRONIC HAZARD IND<br>SC: INDICATES IF MATERIAL HAS A        | HAZCRON<br>HIGH INCIDENCE     | L<br>OF HAZARI    | N          | HAZMAT              | E |
| HAZMAT CONTAINER SIZE<br>SC: DESCRIBES MATERIAL'S CONTAIN           | HAZCNTRSIZ<br>ER SIZE         | C,25              | N          | HAZMAT              | E |
| HAZMAT CONTAINER TYPE<br>SC: DESCRIPTION OF THE MATERIAL            | HAZCONTRTYP<br>CONTAINER (CAN | C,25<br>, DRUM, B | N<br>OX, E | HAZMAT<br>TC)       | E |
| HAZMAT DEPT CODE<br>SC: THE DEPARTMENT RESPONSIBLE F                | HAZDEPT<br>OR THE SPECIFI     | C,5<br>ED MATERI  | N<br>AL    | HAZMAT              | E |
| HAZMAT_ESTIMATED_USAGE<br>SC: AN ESTIMATE OF THE AMOUNT OF          | HAZESTUSG<br>MATERIAL USED    | C,25<br>PER MONT  | N<br>H/QUA | HAZMAT<br>RTER/YEAR | E |
| HAZMAT_ITEM_NUMBER<br>SC: ASSIGNED SEQUENCE NUMBER FOR              | HAZITEMNBR<br>TRACKING PURP   | n,5<br>oses       | Y          | HAZMAT              | E |
| HAZMAT_LOCKER_LOCATION<br>SC: LOCATION (COMPARTMENT NAME/N          | HAZLOC<br>UMBER, LOCKER       | C,75<br>NUMBER)   | N          | HAZMAT              | E |
| HAZMAT_MANUFACTURER_DESCRIPTION<br>SC: MANUFACTURER'S NAME, ADDRESS | HAZMANUF<br>, PHONE           | C,75              | N          | HAZMAT              | E |
| HAZMAT_METHOD_OF_APPLICATION<br>SC: THE METHOD OF USING THE MATE    | HAZAPPL<br>RIAL (SPRAY, P     | C,50<br>OUR, PAIN | N<br>T, MI | HAZMAT<br>X, ETC)   | E |
| HAZMAT_NSN<br>SC: THE NATIONAL STOCK NUMBER OF                      | HAZNSN<br>THE HAZARDOUS       | N,25<br>MATERIAL  | Y          | HAZMAT              | E |
| HAZMAT QUANTITY ON HAND<br>SC: THE QUANTITY OF THE SPECIFIE         | HAZQOH<br>D MATERIAL AVA      | N,3<br>ILABLE     | N          | HAZMAT              | E |
| HAZMAT_SHELF_LIFE<br>SC: SKELF LIFE IN MONTHS OF THE                | HAZSHELF<br>MATERIAL          | N, 2              | N          | HAZMAT              | E |
| HAZMAT SPECIFICATION NUMBER SC: THE SPECIFICATION NUMBER OF         | HAZSPEC<br>THE MATERIAL       | N, 25             | N          | HAZMAT              | E |
| HAZMAT TRADE NAME<br>SC: THE COMMERCTAL NAME OF THE H               |                               |                   |            |                     |   |

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HEARING COMPARTMENT LOCATION HEARCMPTLOC N, 10 Y HEARING E SC: NUMERIC DESRIPTION OF THE SURVEYED COMPARTMENT HEARING NOISE SOURCE CODE HEARSRC N, 2 N HEARING F. SC: DSCRIPTION OF THE TYPE OF NOISE SOURCE IN THE SURVEY Long Comment : NOISE SOURCE CODES: 1. COMPRESSED AIR/GASES 2. MACHINERY 3. GRINDING 4. WEAPONS LAUNCH (GUNFIRE, MISSILE LAUNCH, ETC) 5. AIRCRAFT ENGINES 6. OTHER HEARING SURVEY COMPARTMENT HEARSURCOMP C, 25 N HEARING F. SC: NAME OF THE COMPARTMENT SUBJECT TO THE HEARING SURVEY HEARING\_SURVEY INDICATOR L N HEARING HEARIND E SC: INDICATES IF A HEARING SURVEY IS REQUIRED HEARING SURVEY LAST DATE HEARSURVLD D Y HEARING E SC: DATE OF THE LAST HEARING SURVEY FOR THE LOCATION SPECIFIED HEARING SURVEY NAME HEARSURVNAM C, 25 N HEARING E SC: NAME OF THE PERSON CONDUCTING THE LAST SURVEY HEARING SURVEY NOISE LEVEL HEARNOISLVL N, 3 N HEARING E SC: NOISE LEVEL (IN DB) OF THE SURVEYED SOURCE HEARING SURVEY ORGANIZATION HEARSURVORG C,50 N HEARING SC: NAME OF THE ORGANIZATION CONDUCTING THE LAST SURVEY HEAT STRESS EQUIPMENT TYPE HEATSTREQTY C,50 Y HEAT STR E SC: DESCRIPTION OF THE HEAT STRESS MONITORING EQUIPMENT TYPE Long Comment: EACH TYPE OF HEAT STRESS MONITORING EQUIPMENT HAS AN ASSOCIATED: MANUFACTURER NAME QUANTITY CALIBRATION DATE RECALIBRATION DUE DATE HEAT STRESS EQUIP CAL DATE HESTREOCALD Y HEAT STR E SC: DATE THE SPECIFIED EQUIPMENT WAS LAST CALIBRATED HEAT STRESS EQUIP RECAL DATE HESTREQUALD D N HEAT STR E SC: DATE THE SPECIFIED EQUIPMENT IS DUE FOR RECALIBRATION HEAT STRESS EQUIP RECAL IND HESTRRECALI L N HEAT STR E

SC: INDICAES IF THE SPECIFIED EQUIPMENT REQUIRES CALIBRATION

HEAT STRESS EQUIP TYPE QUANTITY HEATSTREQQT C, 25 N HEAT STR E

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SC: THE QUANTITY OF SPECIFIED HEAT STRESS EQUIPMENT

MED SURVEIL AUTH COMMAND MEDSURAUTHC C,50 N MEDSURV E

SC: NAME OF THE COMMAND OF THE REVIEWING AUTHORITY

MED SURVEIL COMMAND DURATION MEDSURFMDUR C,50 N MEDSURV E

SC: DURATION OF HAZARD EXPOSURE BEGAN AT THE SPECIFIED COMMAND

MED SURVEIL COMMAND NAME MEDSURCMDNA C,75 N MEDSURV E

SC: NAME OF THE COMMAND WHERE EXPOSURE TO MEDICAL HAZARD OCCURRED

MED\_SURVEIL\_COMMAND\_UNIT\_ID\_CODE MEDSURUIC N, 6 N MEDSURV E

SC: COMMAND'S UNIT IDENTIFICATION CODE WHERE HAZARD EXPOSURE OCCURRED

MED\_SURVEIL\_EVAL\_AUTHORITY\_NAME MEDSURAUTHN C,50 N MEDSURV E

SC: NAME/RANK/TITLE OF THE AUTHORITY REVIEWING THE MED SURV EVALUATION

MED\_SURVEIL\_EVAL\_COMMENTS MEDSUREVALC C,120 N MEDSURV E

SC: REVIEWING AUTHORIY'S COMMENTS CONCERNING THE SPECIFIED EVALUATION

MED SURVEIL EVAL DATE MEDSURVDT D Y MEDSURV E

SC: DATE WHEN THE SPECIFIED MEDICAL SURVEILLANCE EVALUATION WAS COMPLETED

MED SURVEIL EVAL INDICATOR MEDSURVEVAL L N MEDSURV E SC: INDICATES IF A SPECIFIED MEDICAL SURVEILLANCE EVALUATION IS COMPLETED

SC: INDICATES IF A SPECIFIED MEDICAL SURVEILLANCE EVALUATION IS COMPLETED

MED\_SURVEIL\_JOB\_DESCRIPTION MEDSURJOB C,120 N MEDSURV E SC: BRIEF DESCRIPTION OF THE MEMBER'S DUTIES WHEN EXPOSED TO HAZARD

Long Comment :

EXAMPLES OF JOB DESCRIPTIONS:

BOILER DIVISION LEADING PETTY OFFICER

GAS STATION EMPLOYEE

TOXIC WASTE MACHINERY OPERATOR

MED\_SURVEIL\_JOB\_PROCESS MEDSURPRO C,120 N MEDSURV E

SC: BRIEF DESCRIPTION OF THE PROCESSES WHERE MEMBER WAS EXPOSED

Long Comment :

EXAMPLES OF JOB PROCESS DESCRIPTIONS:

ASBESTOS RIP OUT TEAM

BOILER INSPECTOR

HAZARDOUS WASTE QUALITY ASSURANCE SUPERVISOR

MED\_SURVEIL\_PROGRAM\_INDICATOR MEDSURIND L N MEDSURV E SC: INDICATES IF A MEMBER IS ELIGIBLE FOR THE MEDICAL SURVEILLANCE PROGRAM

MED SURVEIL TYPE MEDSURTYP C,50 Y MEDSURV E

SC: INDICATES THE TYPE OF MEDICAL SURVEILLANCE TO BE CONDUCTED

Long Comment :

TYPES OF SURVEILLANCE WITHIN THE MEDICAL SURVEILLANCE PROGRAM INCLUDE:

ASBESTOS

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LEAD CHROMATES PCP's OTHER AS SPECIFIED

MISHAP CATEGORY MISCAT C,45 N MISHAP E SC: GENERAL CATEGORY OF THE MISHAP (COLLISION, FL:ODING, ETC)

Long Comment: EXAMPLES OF MISHAP CATEGORIES COLLISION FLOODING GROUNDING ELECTRICAL SHOCK DECK SEAMANSHIP MAN OVERBOARD CHEMICAL/TOXIC EXPOSURE HEAT INJURY AIRCRAFT/AVIATION MATERIAL FAILURE MACHINERY OPERATION HEAVY WEATHER SMALL BOATS INJURY CARGO HANDLING EXPLOSION ORDNANCE

MISHAP CAUSE C,120 N MISHAP E SC: BRIEF DESCRIPTION OF THE CAUSE OF THE MISHAP

Long Comment:
EXAMPLE CAUSES FOR MISHAP:
OPERATOR ERROR
INSUFFICIENT TRAINING
MATERIAL FAILURE
IMPROPER EQUIPMENT

MISHAP DATE MISDAT D Y MISHAP E

SC: DATE WHEN THE MISHAP OCCURRED

MISHAP\_DEPARTMENT MISDEP C,4 N MISHAP E

SC: IDENTIFIES THE DEPARTMENT IN WHICH A MISHAP OCCURRED

MISHAP DESCRIPTION MISDESC C,120 N MISHAP E SC: BRIEF DESCRIPTION (INCLUDE EXTENT OF INJURY AND/OR PROPERTY DAMAGE

MISHAP\_DIVISION MISDIV C,6 N MISHAP E

SC: INDICATES THE DIVISION IN WHICH THE MISHAP OCCURRED

MISHAP EXTERNAL REPORT IND MISEXTREP L N MISHAP E SC: INDICATES IF AN EXTERNAL MISHAP REPORT MUST BE SENT FROM THE COMMAND

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|   | MISHAP_EXTERNAL_REPORT_NUMBER<br>SC: LETTER SERIAL NUMBER/MESSAGE | MISEXTREPNU<br>DATE-TIME-GROU | N,12<br>JP OF THE | N<br>EXTE | MISHAP<br>RNAL REPORT | E |  |
|---|---|-------------------------------|-------------------|-----------|-----------------------|---|--|
|   | MISHAP LOCATION<br>SC: THOROUGH DESCRIPTION OF THE 1              | MISLOC<br>MISHAP LOCATION     | C,120             | N         | MISHAP                | E |  |
| Long Comment: LOCATION DESCRIPTION SHOULD BE AS THOROUGH AS POSSIBLE: 1. COMPARTMENT NAME AND LOCATION IN COMPARTMENT IF APPLICABLE 2. FRAME NUMBER, DECK OR LEVEL, AND SIDE IF TOPSIDE 3. LOCATION ON PIER, OR DRYDOCK OR BUILDING IF OFF THE SHIP |   |                               |                   |           |                       |   |  |
|   | MISHAP_PHOTO_INDICATOR SC: INDICATES IF PHOTOS WERE TAKE          |                               |                   |           |                       | E |  |
|   | MISHAP REPORT DATE<br>SC: DATE THE MISHAP REPORT WAS ST           |                               | D                 | N         | MISHAP                | E |  |
|   | MISHAP REPORT INDICATOR   | MISREPIND                     | т.                | N         | MTSHAP                | E |  |

| MISHAP REPORT DATE<br>SC: DATE THE MISHAP REPORT WAS S              | MISREPDAT<br>SUBMITTED           | D                 | N          | MISHAP               | E  |
|---|----------------------------------|-------------------|------------|----------------------|----|
| MISHAP_REPORT_INDICATOR<br>SC: INDICATES IF A MISHAP REPORT         | MISREPIND<br>HAS BEEN SUBM       | L<br>ITTED        | N          | MISHAP               | E  |
| MISHAP REPORT OFFICER<br>SC: NAME AND RANK OF THE DIVISION          | MISREPOFF<br>ON OFFICER SUBM     | C,50<br>ITTING TH | N<br>E MIS | MISHAP<br>HAP REPORT | E  |
| MISHAP SEQUENCE NUMBER<br>SC: SEQUENTIAL NUMBER FOR TRACKI          | MISSEQ<br>NG PURPOSES (F         | N,5<br>ORMAT:YYN  | N<br>NNN)  | MISHAP               | E  |
| MISHAP SUPERVISOR NAME<br>SC: NAME OF THE WORK SUPERVISOR           | MISSUPNAM<br>AT THE TIME OF      | C,25<br>THE MISH  | N<br>Ap    | MISHAP               | E  |
| MISHAP TIME<br>SC: TIME OF THE MISHAP (24 HOUR                      | MISTIM<br>FORMAT: HHMM)          | N, 4              | Y          | MISHAP               | E  |
| MISHAP WITNESS DIVISION<br>SC: DIVISION THE WITNESS IS ASSI         | MISWITDIV                        | C,6               | N          | MISHAP               | E  |
| MISHAP WITNESS NAME<br>SC: NAME AND RANK OF THE MISHAP              | MISWITNAM<br>WITNESS             | C,25              | N          | MISHAP               | E  |
| MISHAP WITNESS NUMBER<br>SC: IDENTIFIES THE NUMBER OF THE           | MISWITNUM<br>WITNESS TO TH       | n,2<br>E Mishap   | N          | MISHAP               | E  |
| MOTOR_VEH_COORDINATOR_NAME<br>SC: NAME OF THE MOTOR VEHICLE SA      | MVEHCOORDNA<br>AFETY COORDINAT   | C,25<br>OR        | N          | MOTRVEH              | E  |
| MOTOR VEH LICENSE INDICATOR<br>SC: INDICATES IF AN OPERATOR'S I     | MVEHLICIND<br>LICENSE IS REQU    | L<br>IRED         | N          | MOTRVEH              | ·E |
| MOTOR VEH SAFETY COURSE DATE<br>SC: COMPLETION DATE OF A SPECIF     |                                  |                   |            |                      | E  |
| MOTOR VEH SAFETY COURSE DUE DATE<br>SC: SCHEDULED DATE FOR A SPECIF | E MVEHSAFCRSD<br>IED MOTOR VEHIC | D<br>LE SAFETY    | N<br>COUR  | MOTRVEH<br>SE        | E  |
| MOTOR_VEH_SAFETY_COURSE_IND   | MVEHSAFCRSI                      | L                 | N          | MOTRVEH              | E  |

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SC: INDICATES REQUIRED ATTENDANCE FOR A SPECIFIED SAFETY COURSE

MOTOR VEH SAFETY COURSE NAME MVEHSAFNAM C,50 N MOTRVEH E

SC: NAME OF A SPECIFIC SAFETY COURSE (E.G. MOTORCYCLE SAFETY)

MOTOR\_VEH\_TYPE MVEHTYP C,45 Y MOTRVEH E

SC: DESCRIPTION OG THE SPECIFIC TYPE OF VEHICLE (FORKLIFT, TRUCK, ETC)

OFF\_DUTY\_COORDINATOR\_NAME COORDNAM C,25 N OFF DUTY E

SC: NAME OF THE OFF DUTY SAFETY PROGRAM COORDINATOR/SUPERVISOR

OFF\_DUTY\_SAFETY\_TYPE OFFDTYTYP C,3 Y OFF DUTY E

SC: TYPES- REC: RECREATION, ATH: ATHLETICS, HOM: HOME, ALC: ALCOHOL

Long Comment :

TOPICS OFSAFETY FOR THE FOLLOWING OFF-DUTY SAFETY TYPES:

RECREATION: HOME:

BICYCLING CHILD SAFETY

WATER SPORTS ELECTRICAL SAFETY

FIREARMS FIRE SAFETY

JOGGING POISON PREVENTION PHYSICAL FITNESS SLIPS AND FALLS

ATHLETICS:

ALCOHOL:

BASKETBALL FOOTBALL

RAQUETBALL SOFTBALL

OFF\_DUTY\_TRAINING\_TOPIC OFFDTYTRNGT C,50 N OFF\_DUTY\_E SC: THE NAME OF THE SPECIFIC TOPIC FOR A GIVEN TYPE OF SAFETY

OFF DUTY TRAINING TOPIC DATE OFFDTYTRNGT D N OFF DUTY E SC: DATE THE LAST SPECIFIED TRAINING TOPIC WAS ATTENDED

OFF DUTY TYPE TRAINING IND OFFDTYTRNGI L N OFF DUTY E SC: INDICATES IF TRAINING FOR A SPECIFIED TYPE OF SAFETY IS REQUIRED

PERSONAL PROTECTIVE EQUIP CODE PERSPROEQIP C,1 N HAZMAT E SC: INDICATES THE TYPE OF PROTECTIVE TO BE USED WITH MATERIAL

Long Comment :

PROTECTIVE EQUIPMENT CODES:

E - EYES

C - CLOTHING

G - GLOVES

R - RESPIRATORY

PERSONAL PROTECTIVE EQUIP IND HAZPERSPROT L N HAZMAT E SC: IS PERSONAL PROTECTIVE EQUIPMENT REQUIRED FOR USE/HANDLING

RADIATION PROTECT MED SCREEN IND RADMED SCRN L N RADSURV E SC: INDICATES IF A MEDICAL SCREEN IS REQUIRED FOR A SPECIFIED RADIATION

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Y RADSURV RADIATION SURVEY DATE RADSURDAT D F. SC: DATE OF THE LAST SPECIFIED SURVEY

Long Comment:

FOR EACH SURVEY DATE REPEAT ALL SURVEY ATTRIBUTES

(NAME, TYPE, ORGANIZATION, ETC)

RADIATION SURVEY NAME RADSURNAM C,50 N RADSURV E SC: NAME, GRADE, TITLE OF THE PERSON CONDUCTING THE SURVEY

RADIATION SURVEY ORGANIZATION RADSURVORG C,45 RADSURV N SC: NAME OF THE ORGANIZATION CONDUCTING THE SPECIFIED SURVEY

RADIATION SURVEY TYPE RADSURTYP RADSURV C,25 Y F. SC: SURVEY TYPES SUCH AS PHOTO, MONITOR, PYHSICAL INSPECTION, ETC

RADIATION TYPE RADTYP C,15 RADSURV E N SC: THE TYPE OF RADIATION HAZARD: IONIZING OR NON-IONIZING

RADIATION TYPE CODE RADTYPCOD N C,6 RADSURV E

SC: SPECIFIES THE SUBTYPE OF A GIVEN RADIATION TYPE

Long Comment :

RADIATION TYPES AND SUB-TYPE CODES:

TYPE: IONIZING

SUB-TYPES: CODES RADIOACTIVE ION RAD X-RAY MACHINES ION-XRA

TYPE:

NON-IONIZING

SUB-TYPES: CODES: RADIOFREQUENCY NON-RFR LASERS NON-LAS OTHER OPTICAL NON-OPT

RESPIRATOR INDICATOR RESPIND L N RESPIRAT E

SC: INDICATES MEMBER'S ELIGIBILITY FOR USE OF A RESPIRATOR

RESPIRATOR TYPE RESPTYP Y RESPIRAT E C,40

SC: DESCRIPTION OF THE TYPE OF RESPIRATOR TO BE USED

Long Comment :

RESPIRATOR TYPES INCLUDE:

AIR-PURIFYING (NON-POWERED) AIR-PURIFYING (POWERED) HOSE MASK (WITH BLOWER)

AIR-LINE (DEMAND)

AIR-LINE (CONTINUOUS FLOW)

SCBA (OPEN CIRCUIT, DEMAND)

HOSE MASK (WITHOUT BLOWER)

AIR-LINE (PRESSURE DEMAND)

SCBA (CLOSED CIRCUIT)

SCBA (OPEN CIRCUIT, PRF^SURE DEMAND)

SAFETY OFFICER PHONE

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RESPIRATOR TYPE DESCRIPTION RESPTYDEC C,75 N RESPIRAT E SC: DESCRIPTION OF THE SPECIFIC RESPIRATOR (COMPANY, SIZE, CARTRIDGES, ETC) RESPIRATOR USER CONDITION CODE RESPUSRCOND N, 2 N RESPIRAT E SC: CONDITION TO INDICATE PHYSICAL CONDITION OF THE POTENTIAL USER Long Comment: CONDITION CODES: 1. LUNG DISEAE 2. PERSISTENT COUGH 3. HEART TROUBLE 4. SHORTNESS OF BREATH 5. HISTORY OF FAINTING OR SEIZURE 6. HIGH BLOOD PRESSURE 7. DIABETES 8. FEAR OF TIGHT OR CLOSED SPACES 9. SENSATION OF SMOTHERING 10. HEAT EXHAUSTION OR HEAT STROKE 11. RUPTURED EAR DRUM 12. DEFECTIVE VISION 13. DEFECTIVE HEARING 14. CONTACT LENSES OR GLASSES 15. OTHER CONDITION THAT MIGHT INTERFERE WITH RESPIRATOR USE OR RESULT IN LIMITED WORK ABILITY 16. CURRENTLY TAKING MEDICATION SAFETY MEMBER DIVISION SAFMBRDIV C, 25 N MEMBER SC: THE DIVISION TO WHICH A MEMBER OF THE SAFETY PROGRAM IS ASSIGNED SAFETY MEMBER DIVISION PHONE SAFMBRDIVPH N.5 N MEMBER E SC: THE PHONE NUMBER OF A MEMBER'S DIVISION OFFICE SAFETY MEMBER NAME SAFMERNAM C,45 MEMBER SC: THE NAME OF A MEMBER IN THE COMMAND'S SAFETY PROGRAM Long Comment : EVERY MEMBER OF THE CREW/COMMAND IS A MEMBER OF THE COMMAND'S SAFETY PROGRAM. THE SAFETY OFFICER IS REQUIRED TO TRACK EVERY MEMBER'S PARTICIPATION IN SAFETY TRAINING AND OTHER ASPECTS OF THE SAFETY PROGRAM AS NECESSARY (i.e., RESPIRATORY PROTECTION). SAFETY MEMBER SSN SAFMBRSSN N, 12 N MEMBER E SC: THE SOCIAL SECURITY NUMBER OF A MEMBER IN THE SAFETY PROGRAM SAFETY OFFICER LOCATION C, 25 N SAFETY E SAFLOCA SC: THE LOCATION OF THE COMMAND SAFETY OFFICE SAFETY OFFICER NAME SAFOFFNAM C,50 SAFETY E SC: THE NAME AND RANK OF THE COMMAND SAFETY OFFICER

SAFPHON

SC: THE PHONE NUMBER OF THE SAFETY OFFICER'S OFFICE

N, 5

N

SAFETY

E

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SCREEN EXAM DATE SCREXDT D N RESPIRAT E SC: DATE OF THE RESPIRATORY SCREENING EXAM

SIHAZTYPE C,50 N SITESURV E SIGHT HAZARD TYPE

SC: THE SOURCE OF A SIGHT HAZARD IN THE SPECIFIED SURVEY LOCATION

Long Comment :

EXAMPLES OF SIGHT HAZARDS INCLUDE:

MACHINERY LASERS **SPRAYS** WELDING

SIGHT\_SPACE LOCATION SISURVLO C, 25 Y SITESURV E

SC: LOCATION OF THE SIGHT SURVEY

Long Comment:

REPEAT SIGHT SURVEY ATTRIBUTES FOR EACH SURVEY LOCATION

SISURVCT C,120 N SITESURV E SIGHT SURVEY COMMENTS

SC: REMARKS CONCERNING A SPECIFIC SIGHT SURVEY

D Y SITESURV E SIGHT SURVEY DATE SISURVDT

SC: DATE OF THE LAST ANNUAL SIGHT SURVEY

SIGHT SURVEY DUE DATE SISURVDU D

SC: DATE OF THE NEXT SIGHT SURVEY FOR A SPECIFIED LOCATION

TAG ACTION TYPE AUTHORITY NAME TAGACTAUTH C,50

SC: NAME/RANK OF THE PERSON AUTHORIZED TO CONDUCT SPECIFIED ACTION

TAG ACTION TYPE CODE TAGACTTYP C, 1

SC: ACTION TYPE CODES: I:INITIATE, R:REVIEW, C:CLEAR, A:AUDIT

TAG ACTION TYPE DATE TAGACTDT D

SC: DATE OF THE LAST SPECIFIED ACTION (INITIATE, REVIEW, AUDIT, CLEAR)

TAG DEPARTMENT NAME TAGDEPT C, 25

SC: NAME OF THE DEPARTMENT RESPONSIBLE FOR THE TAG OUT ACTION

TAG DEPARTMENT SEQUENCE NUMBER TAGDEPNUM N,10 TAG OUT

SC: DEPARTMENTAL TAG SEQUENCE NUMBER FOR TRACKING/AUDITING PURPOSES

TAGDIV TAG DIVISION NAME C,25 N TAG OUT

SC: NAME OF THE DIVISION RESPONSIBLE FOR THE TAG-OUT ACTION

TAG EQUIPMENT NAME TAGEQUIPNAM C,50 Y TAG OUT

SC: NOUN NAME OF THE EQUIPMENT BEING TAGGED

TAG FIRST PERSON NAME TAGFIRNAM C,50 N TAG OUT

SC: NAME/RANK OF THE PERSON AFFIXING THE SPECIFIED TAG

TAGNUMTAG N,2 N TAG OUT TAG NUMBER OF TAGS

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SC: THE NUMBER OF TAGS ASSOCIATED WITH THE SPECIFIC DEPT NUMBER TAG ACTION TAG SECOND PERSON NAME TAGSECNAM C,50 N TAG OUT E SC: NAME/RANK OF THE PERSON CHECKING THE SPECIFIED TAG TAG SYSTEM EFFECTED TAGSYS C,75 N TAG OUT SC: NAME OF THE SPECIFIC SYSTEMS EFFECTED BY THE TAG ACTION TAG TYPE CODE TAGTYP C,1 Y TAG OUT E SC: TAG TYPES: C: CAUTION, D:DANGER TAG TYPE HAZARD C,120 TAGHAZ N TAG OUT E SC: HAZARDS ASSOCIATED WITH VIOLATIONS OF THE TAGS (SHOCK, FLOODING, ETC) C,120 TAG TYPE INSTRUCTIONS TAG OUT TAGINST N

SC: INSTRUCTIONS FOR ACTION NECESSARY BEFORE TAGS CAN BE CLEARED

RULE REPORT FOR SAFETY - VERSION 2.11

Rules for HEARING CONSERVATION SURVEY

IF NOISE\_SOURCE\_CODE
>= 1
THEN REPEAT SOURCE\_CODE, NOISE\_LEVL

Rules for MISHAP INVESTIGATION

IF MISHAP\_SEQUENCE\_NUMBER
> 0
THEN REPEAT ALL MISHAP ATTRIBUTES

IF MISHAP\_WITNESS\_NUMBER
>= 1
THEN REPEAT ALL WITNESS ATTRIBUTES

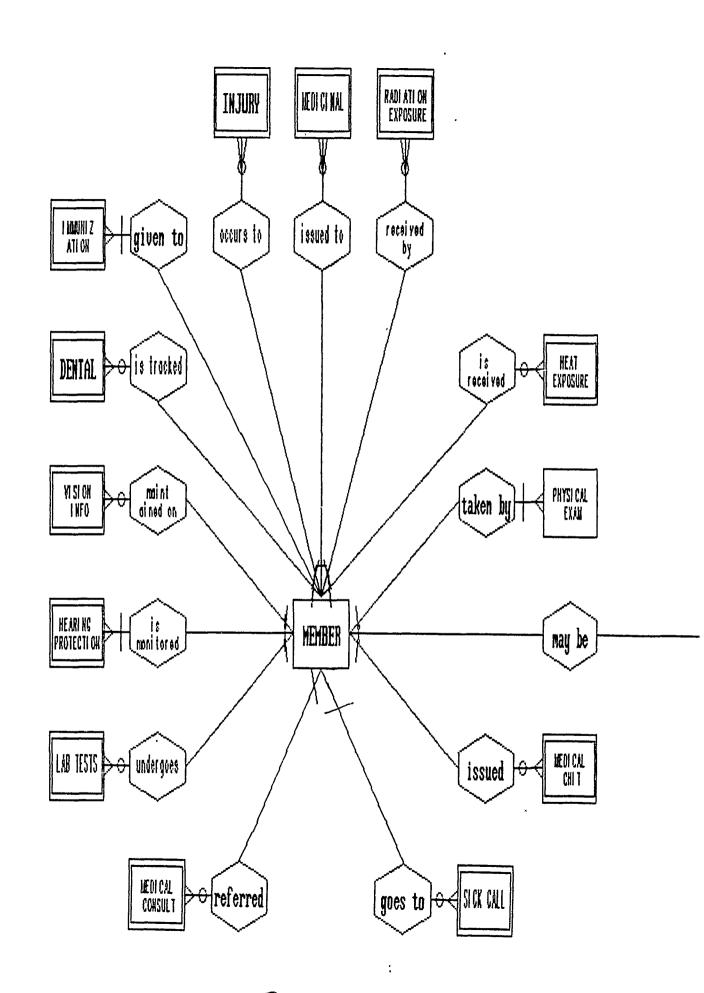
Rules for RESPIRATOR EQUIPMENT

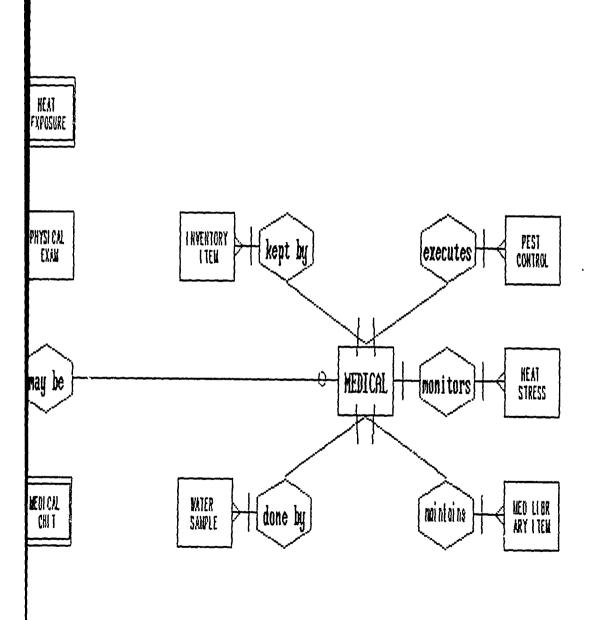
if RESPIRATOR\_USER\_CONDITION\_CODE
>= 1
THEN REPEAT USER\_CONDITION\_CODE

# APPENDIX D

# MEDICAL ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the MEDICAL function as discussed in Chapter IV.





STRUCTURE REPORT FOR MEDICAL - VERSION 2.11

#### DENTAL =

- DENTAL CLASSIFICATION NUMBER
- + DENTAL CLASS PREVIOUS NUMBER
- + DENTAL EXAM DUE DATE
- + DENTAL EXAM LAST DATE
- + DENTAL FOLLOWUP DATE
- + DENTAL PANOGRAPH DATE ON FILE
- + DENTAL SURVEY DATE
- + DENTAL SURVEY INDICATOR

# HEARING PROTECTION =

HEARING AUDIOGRAM LAST DATE

- + HEARING\_AUDIOGRAM\_TYPE
- + HEARING 90 DAY FOLLWUP EXAM DATE
- + HEARING AUDIOGRAM COMMENTS
- + HEARING\_AUDIOGRAM\_INDICATOR
- + HEARING AUDIOGRAM TYPE DUE DATE
- + HEARING DOUBLE PROTECTION IND
- + HEARING EAR PLUG ISSUE DATE + HEARING EAR PLUG SIZE LEFT + HEARING EAR PLUG SIZE RIGHT

- + HEARING FAR PLUG TYPE

# HEAT EXPOSURE =

HEAT EXPOSURE DATE

- + HEAT EXPOSURE TIME
- + HEAT EXP PHEL EXPOSURE TIME
- + HEAT EXP PHEL COMMENTS
- + HEAT EXP PHEL OPERATOR NUMBER
- + HEAT EXP PHEL RECOVERY TIME

# HEAT STRESS =

HEAT SURVEY SAMPLE DATE

- + HEAT\_SURVEY\_SAMPLE\_LOCATION
- + HEAT SURVEY COMMENTS
- + HEAT\_SURVEY\_DRY\_BULB\_TEMP
- + HEAT\_SURVEY\_FUEL\_PRESENT\_IND
- + HEAT\_SURVEY\_GLOBE\_TEMP
- + HEAT\_SURVEY\_OUT\_DRY\_BULB\_TEMP

- + HEAT SURVEY OUT WET BULB TEMP + HEAT SURVEY SAMPLE TIME + HEAT SURVEY WET BULB TEMP + HEAT SURVEY WET BULB TEMP INDEX

# IMMUNIZATION =

IMMUNIZATION DATE

- + IMMUNIZATION TYPE
- + ANTI\_MALARIAL PROPHYLAXIS\_IND
- + ANTI\_MALARIAL\_START\_DATE
- + ANTI MALARIAL STOP DATE
- + EXPOSURE INDICATOR
- + IMMUNIZATION BATCH NUMBER
- + IMMUNIZATION\_CREW\_ALLERGY\_IND

- + IMMUNIZATION DOSAGE
- + IMMUNIZATION DUE DATE
- + IMMUNIZATION INDICATOR
- + IMMUNIZATION PROVIDER NAME
- + MEDICAL ID\_TAG\_INDICATOR
- + MEDICAL ID TAG ISSUE DATE + MEDICAL ID TAG SIGNATURE IND
- + PPD COMMENTS
- + PPD CONVERTER INDICATOR
- + PPD LAST EVAL DATE
- + PPD NEXT EVAL DATE
- + PPD REQUIRED FOLLOW UP COMPLETE
- + PPD SCREEN DATE
- + PPD SCREEN DUE DATE

#### INJURY =

- INJURY DATE
- + INJURY\_SEQUENCE\_NUMBER
- + INJURY\_CIRCUMSTANCES\_TEXT
- + INJURY\_DIAGNOSIS

- + INJURY DIAGNOSIS
  + INJURY DISABILITY
  + INJURY FIRST SEEN DATE
  + INJURY FIRST SEEN TIME
  + INJURY LOCATION
  + INJURY LOCATION OF ACCIDENT
  + INJURY MED DEPT NAME
  + INJURY MISHAP REPORT IND
  + INJURY PROGNOSIS
  + INJURY REPORT INDICATOR

- + INJURY REPORT INDICATOR
- + INJURY START TIME
- + INJURY\_SUBJECT\_CONDITION\_CODE
- + INJURY TREATMENT
- + INJURY WITNESS DEPARTMENT
- + INJURY WITNESS DIVISION
- + INJURY WITNESS NAME
- + MISCONDUCT CODE
- + NUMBER OF DAYS\_LOST
- + RETURN DATE
- + SAFETY HAZARD INDICATOR
- + UNDER THE INFLUENCE CODE

## INVENTORY ITEM =

- INVENTORY DATE
- + INVENTORY TYPE
- + INVENTORY LOCATION
- + INV\_ITEM\_ALLOWANCE
- + INV\_ITEM\_EXPIRATION\_DATE
- + INV\_ITEM\_FIRST\_INSPECTION\_DATE
- + INV\_ITEM\_INSPECTION\_CODE
- + INV\_ITEM\_INSPECTION\_DATE
- + INV\_ITEM\_INSPECTION\_DUE\_DATE
- + INV\_ITEM\_LOCAL\_MANUFACTURER
- + INV\_ITEM\_LOT\_NUMBER
- + INV\_ITEM\_MANUFACTURE\_DATE
- + INV\_ITEM\_NATIONAL\_STOCK\_NUMBER

- + INV ITEM NOMENCLATURE
- + INV ITEM QUANTITY ON HAND
- + INV ITEM SHELF LIFE
- + INV ITEM TYPE
- + INV ITEM UNIT OF ISSUE

#### LAB TESTS =

LAB TEST SEQUENCE NUMBER

- + LAB\_TEST\_COMMENTS
- + LAB\_TEST\_DATE
- + LAB\_TEST\_RESULT
- + LAB TEST TYPE

#### MED LIBRARY ITEM =

PUBLICATION NUMBER

- + PUBLICATION TITLE
  + PUBLICATION AUTHOR OR ORIG
  + PUBLICATION DATE
  + PUBLICATION PUBLISHER NAME

- + PUBLICATION REVISION CHANGE

#### MEDICAL =

MEDICAL DEPT REPRESENTATIVE NAME

- + MEDICAL DEPT LOCATION
- + MEDICAL DEPT PHONE
- + MEDICAL DEPT REPRESENTATIVE SSN
- + MEDICAL RADIATION SURVEILL IND
- + MEDICAL RAD HEALTH OFFICER NAME
- + MEDICAL RAD HEALTH OFFICER SSN

# MEDICAL CHIT =

MEDICAL\_CHIT\_FFFECTIVE\_DATE

- + MEDICAL\_CHIT\_TYPE
- + MEDICAL\_CHIT\_DIAGNOSIS
- + MEDICAL\_CHIT\_EXPIRATION\_DATE
- + MEDICAL\_CHIT\_ISSUING\_ACTIVITY

- + MEDICAL CHIT REASON + MEDICAL CHIT TO ACTIVITY + MEDICAL STATUS INDICATOR

#### MEDICAL CONSULT =

MEDICAL CONSULT DATE

- + MEDICAL CONSULT TYPE
- + MEDICAL CONSULT DIAGNOSIS
- + MEDICAL CONSULT FOLLOW UP IND + MEDICAL CONSULT LOCATION
- + MEDICAL\_CONSULT PREVIOUS RESULTS
- + MEDICAL\_CONSULT\_PROVIDER NAME
- + MEDICAL CONSULT PROVIDER NUM
- + MEDICAL CONSULT REASON
- + MEDICAL CONSULT REFERRAL TO
- + MEDICAL CONSULT REPORT RECEIVED
- + MEDICAL CONSULT TIME

# MEDICINAL =

MEDICINAL PRESCRIPTION NUMBER

- + MEDICINAL AUTHORIZATION REQUIRED
- + MEDICINAL ISSUE DATE
- + MEDICINAL ISSUE TIME
- + MEDICINAL NSN
- + MEDICINAL NSN LOCATION
- + MEDICINAL PATIENT NAME
- + MEDICINAL QUANTITY ISSUED

#### MEMBER =

- MEDICAL MEMBER SSN
- + MEDICAL\_MEMBER\_NAME
- + MEMBER ALLERGY INDICATOR
- + MEMBER\_BODY\_FAT\_PERCENT
- + MEMBER HEIGHT + MEMBER MEDICAL SURVEILLANCE IND + MEMBER RH ABO BLOOD TYPE + MEMBER WEIGHT

- + MEMBER\_WEIGHT\_CONTROL\_PROGRAM

#### PEST CONTROL =

- PEST CONTROL ACTION
- + PEST CONTROL DATE
- + PEST CONTROL SPACE SPRAYED
- + PEST CONTOL TYPE OF PEST
- + PEST CONTROL COMMENTS
- + PEST CONTROL FOLLOW UP DATE
- + PEST CONTROL OPERATOR INITIAL
- + PEST CONTROL PESTICIDE AMOUNT
- + PEST CONTROL PESTICIDE TYPE
- + PEST CONTROL PEST COUNT
- + PEST CONTROL SIGNATURE

#### PHYSICAL EXAM =

- PHYSICAL EXAM DATE
- + PHYSICAL\_EXAM\_TYPE
- + PHYSICAL\_CLINICAL\_EVALUATION\_TYP
- + PHYSICAL\_EXAM\_COMMENTS
- + PHYSICAL\_EXAM\_DUE\_DATE
- + PHYSICAL\_EXAM\_FACILITY
- + PHYSICAL\_EXAM\_INDICATOR
- + PHYSICAL\_EXAM\_RECOMMENDATIONS
- + PHYSICAL\_EXAM\_RESULTS + PHYSICAL\_MED\_SURVEILLANCE\_IND + PHYSICAL\_PHYSICIAN\_NAME + PHYSICAL\_PURPOSE\_FOR\_EXAM

- + PHYSICAL QUALIFICATION INDICATOR

# RADIATION EXPOSURE =

- RAD EXP QUARTER NUMBER
- + RAD EXP SEQUENCE NUMBER
- + RADĪATION CODE
- + RAD BIOASSAY ACTIVITY
- + RAD BIOASSAY CHEMICAL FORM
- + RAD BIOASSAY COMMENT IND
- + RAD BIOASSAY DATE
- + RAD BIOASSAY INDICATOR

- + RAD\_BIOASSAY\_INSTRUMENT
- + RAD\_BIOASSAY\_LOCATION
- + RAD\_BIOASSAY\_PROBE\_DESCRIPTION + RAD\_BIOASSAY\_PROBE\_SERIAL\_NUMBER + RAD\_BIOASSAY\_PURPOSE + RAD\_BIOASSAY\_RADIONUCLIDE\_TYPE + RAD\_BIOASSAY\_RESULT

- + RAD\_BIOASSAY\_SERIAL\_NUMBER + RAD\_BIOASSAY\_TIME + RAD\_BIOASSAY\_TYPE

- + RAD BIO MIN DETECTABLE ACTIVITY
- + RAD EXPOSURE EXTREMITY
- + RAD\_EXPOSURE\_SHIP\_ADDRESS
- + RAD\_EXP\_COMMENT
- + RAD EXP COMMENT INDICATOR
- + RAD EXP ESTIMATED INDICATOR
- + RAD\_EXP\_LOCATION SHIP NAME
- + RAD\_EXP\_RECORD\_TYPE
- + RAD\_EXP\_RESULT\_GAMMA

- + RAD\_EXP\_RESULT\_GAMMA
  + RAD\_EXP\_RESULT\_NEUTRON
  + RAD\_EXP\_SKIN\_DOSAGE
  + RAD\_EXP\_START\_DATE
  + RAD\_EXP\_STOP\_DATE
  + RAD\_EXP\_TLD\_TYPE
  + RAD\_EXP\_TOTAL\_LIFE\_NUMERIC
  + RAD\_EXP\_TOTAL\_LIFE\_TO\_DATE
  + RAD\_EXP\_TOTAL\_LIFE\_TO\_DATE
  + RAD\_EXP\_TOTAL\_PERIOD\_COUNT
  + RAD\_EXP\_VISITOR\_MEMBER\_INDICATOR
  + RAD\_NON\_REPORTING\_VISITOR\_IND
  + RAD\_PERMISSIBLE\_LIFETIME\_COUNT
  + RAD\_TOTAL\_EXPOSURE

- + RAD TOTAL EXPOSURE

## SICK CALL =

- SICKCALL DATE
- + SICKCALL START TIME
- + SICKCALL\_BLOOD\_PRESSURE\_SYSTOLC
- + SICKCALL BLOOD PRESS DIASTOLIC
- + SICKCALL\_BODY\_TEMP
- + SICKCALL DISPOSITION COMMENTS
- + SICKCALL DISPOSITION TYPE
- + SICKCALL\_ESTIMATED\_DAYS
- + SICKCALL\_FOLLOW\_UP\_DATE
- + SICKCALL\_FOLLOW\_UP\_TIME
- + SICKCALL\_MED\_FACILITY\_LOCATION
- + SICKCALL\_PULSE\_RATE
- + SICKCALL RESPIRATION + SICKCALL TREATMENT COMPLETE IND + SICKCALL VIA TRANSFORTATION

#### VISION INFO =

- EYE EXAM DATE
- + EYE EXAM TYPE
- + EYEWEAR\_INDICATOR
- + EYEWEAR SPECIAL INDICATOR
- + EYE COLOR VISION TEST
- + EYE DEPTH PERCEPTION

- + EYE DISTANT VISION LEFT
  + EYE DISTANT VISION RIGHT
  + EYE INTRACCULAR TENSION
  + EYE NEAR VISION LEFT
  + EYE NEAR VISION RIGHT
  + EYE NUMBER OF CONTACT LENSES
  + EYE NUMBER OF SPECTACLES
  + EYE REFRACTION LEFT
  + EYE REFRACTION RIGHT
  + LENS TYPE

- + LENS\_TYPE

#### WATER SAMPLE =

WATER\_TEST\_SEQUENCE\_NUMBER

- + DAILY BROMINE CHLORINE RESIDUAL + WATER BACTERIA TEST RESULTS
- + WATER TEST COMMENT
- + WATER TEST DATE
- + WATER TEST LOCATION
- + WATER TEST SOURCE

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| ATTRIBUTE REPORT FOR MEDICAL - VERSION 2.11                         |                                     |                  |             |                      |         |
|---|-------------------------------------|------------------|-------------|----------------------|---------|
| Attribute Name  | Alias                               | Format           | Key         | Object &             | Туре    |
| ANTI MALARIAL PROPHYLAXIS IND SC: Indicates if the crew member      | ANTI MAL PR                         | L                | N           | IMMUNIZA             |         |
| ANTI MALARIAL START DATE SC: The start date of anti malar           | ANTI MAL ST                         | D<br>is          | N           | IMMUNIZA             | M       |
| ANTI MALARIAL STOP DATE SC: Date that anti malarial prop            | ANTI MAL ST                         | D<br>ed          | N           | immuniza             | W       |
| DAILY BROMINE CHLORINE RESIDUAL SC: DAILY CHLORINE BROMINE RESIDUAL | WTRCHBR<br>DUAL (NUMERIC            | C,5              | ")          | WATER                | E       |
| DENTAL CLASSIFICATION NUMBER SC: THIS IS THE DENTAL CLASSIFIC       | DENTNBR<br>CATION NUMBER            | N,1<br>(1,2,3 OR | N<br>4) OF  | DENTAL<br>THE MEMBE  | W<br>Er |
| DENTAL CLASS PREVIOUS NUMBER<br>SC: THE PREVIOUS DENTAL CLASSIFI    | DNTPVNB<br>CATION NUMBER            | N,1<br>OF THE M  | n<br>Emer   | DENTAL               | W       |
| DENTAL EXAM DUE DATE<br>SC: DATE FOR THE MEMBER'S NEXT I            | DNTEXDU<br>DENTAL EXAM              | D                | N           | DENTAL               | W       |
| DENTAL EXAM LAST DATE<br>SC: DATE OF THE MEMBER'S LAST DE           |                                     | ם                | N           | DENTAL               | W       |
| DENTAL FOLLOWUP DATE<br>SC: DATE FOR THE NEXT FOLLOW UP             | DNTFWDT<br>DENTAL EXAM              | D                | N           | DENTAL               | W       |
| DENTAL PANOGRAPH DATE ON FILE<br>SC: DATE OF THE MEMBER'S LAST DE   | DNTPNDT<br>ENTAL PANOGRAP           | H D              | N           | DENTAL               | W       |
| DENTAL SURVEY DATE<br>SC: DATE OF THE MEMBER'S LAST DE              | DETSURD<br>ENTAL SURVEY             | D                | N           | DENTAL               | W       |
| DENTAL_SURVEY_INDICATOR<br>SC: INDICATES IF THE MEMBER HAS          | DETSURI<br>BEEN PART OF             | L<br>THE DENTA   | N<br>L SURV | D <b>ENTAL</b><br>EY | W       |
| EXPOSURE_INDICATOR SC: Indicates exposure to a spec                 | EXP IND<br>cific type of            | L<br>disease,    | N<br>virus, | IMMUNIZA<br>etc      | W       |
| TETANUS INFLUENZA I   | TYPHOID<br>PLAGUE<br>GAMMA GLOBULIN | ī                |             |                      |         |
| EYEWEAR INDICATOR SC: INDICATES IF MEMBER REQUIRES                  | EY.WRIN<br>S EYE(JEAR               | L                | N           | VISION               | W       |
| EYEWEAR_SPECIAL_INDICATOR   | EYESPIN                             | L                | N           | VISION               | W       |

| SC: INDICATES IF SPECIAL EYEWEAR IS REQUIRED (EG DIVING)   |                             |
|--|-----------------------------|
| EYE_COLOR_VISION_TEST  | W                           |
| EYE_DEPTH_PERCEPTION EYEDEPTHPER C,50 N VISION SC: DESCRIBES THE DEPTH PERCEPTION TEST AND RESULTS                             | W                           |
| EYE_DISTANT VISION LEFT EYEDISTLFT N,15 N VISION SC: LEFT & (E UNCORRECTED/CORRECTED DISTANT VISION (UNCORR20/XXXCORR20)       | <b>w</b><br>0/ <b>XXX</b> ) |
| EYE_DISTAN VISION RIGHT EYEDISTRHT N,15 N VISION SC: RIGHT EYE UNCORRECTED/CORRECTED DISTANT VISION (UNCORR20/XXXCORR20        |                             |
| EYE EXAM DATE EYEEXDATE D Y VISION SC: DATE OF THE MEMBER'S LAST EYE EXAM  | W                           |
| EYE EXAM TYPE EYEXAMTYP C,45 Y VISION SC: THE TYPE OF EYE EXAM AS SPECIFIED  | W                           |
| EYE_INTRAOCULAR_TENSION EYEINTTRAOC C,50 N VISION SC: DESCRIBES THE INTRAOCULAR TENSION OF THE LEFT/RIGHT EYES (mmHG)          |                             |
| EYE_NEAR_VISION_LEFT EYENEARLFT N, 25 N VISION SC: LEFT EYE UNCORRECT/CORRECT VISION AND LENS DESCRIPTION                      | W                           |
| EYE_NEAR_VISION_RIGHT EYENEARRHT N,25 N VISION SC: RIGHT EYE UNCORRECT/CORRECT NEAR VISION AND LENS DESCRIPTION                | W                           |
| EYE_NUMBER_OF_CONTACT_LENSES EYENUMC N,1 N VISION SC: THE NUMBER OF PAIRS OF CONTACT LENSES HE MEMBER OWNS                     | W                           |
| EYE_NUMBER_OF_SPECTACLES EYENUMS N,1 N VISION SC: THE TOTAL NUMBER OF SPECTACLES THE MEMBER OWNS                               |                             |
| EYE_REFRACTION_LEFT  |                             |
| EYE REFRACTION RIGHT EYEREFRACTR N, 4, 2 N VISION SC: REFRACTIVE PRESCRIPTION FOR THE RIGHT EYE AS NECESSARY                   | W                           |
| HEARING 90 DAY FOLLWUP EXAM DATE AUDIOFOLEXD D N HEARING SC: DATE OF A FOLLOW-UP AUDIOGRAM 90 DAYS FROM DATE OF LAST AUDIOGRAM | W<br>AM                     |
| HEARING_AUDIOGRAM_COMMENTS AUDIOCMNT C,120 N HEARING SC: COMMENTS REGARDING A SPECIFIED AUDIOGRAM                              | W                           |
| HEARING_AUDIOGRAM_INDICATOR AUDIOGRMIND L N HEARING SC: INDICATES IF THE MEMBER REQUIRES A SPECIFIED AUDIOGRAM                 | W                           |
| HEARING_AUDIOGRAM_LAST_DATE AUDIODT D Y HEARING SC: DATE OF THE LAST REFERENCE AUDIOGRAM (FORM DD2215 AUDIOGRAM)               | W                           |
| HEARING AUDIOGRAM TYPE AUDIOTYPE C,25 Y HEARING SC: SPECIFIES THE TYPE OF AUDIOGRAM (BASELINE, FOLLOW-UP, OTHER, ETC           | w                           |

9/15/1991 12:27 PM

HEAT SURVEY GLOBE TEMP

ATTRIBUTE REPORT
Author: Dan Montgomery

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HEARING\_AUDIOGRAM TYPE DUE DATE AUDIODUDT D N HEARING SC: DATE FOR THE NEXT SPECIFIED AUDIOGRAM HEARING DOUBLE PROTECTION IND DBLPROTECT HEARING SC: INDICATES IF DOUBLE HEARING PROTECTION IS REQUIRED HEARING EAR PLUG ISSUE DATE EARPLUGDT HEARING SC: DATE THE EAR PLUGS WERE ISSUED TO THE MEMBER HEARING EAR PLUG SIZE LEFT EARPLUGLFT C.2 HEARING SC: THIS IS THE LEFT EAR PLUG SIZE Long Comment : EAR PLUG SIZES: XS, S, M, L, XL HEARING EAR PLUG SIZE RIGHT EARPLUGRHT C,2 HEARING SC: THIS IS THE SIZE OF THE RIGHT EAR PLUG Long Comment : EAR PLUG SIZES: SM, S, M, L, XL HEARING EAR PLUG TYPE EARPLUGTYPE C,20 N HEARING SC: DESCRIPTION OF THE TYPE OF EAR PLUGS ISSUED TO THE MEMBER HEAT EXPOSURE DATE HEXPDT HEAT EXP SC: DATE THAT HEAT EXPOSURE WAS RECEIVED HEAT EXPOSURE TIME Y HEAT EXP W SC: TIME THE HEAT EXPOSURE OCCURRED (HHMM) HEAT EXP PHEL COMMENTS HEAT EXP PH C,50 N HEAT EXP SC: Comments concerning heat stress survey exposure/recovery times HEAT EXP PHEL EXPOSURE TIME HEAT EXP PH N,2,1 Y HEAT SC: PERSONAL HEAT EXPOSURE TIME IN HOURS (I.E. .2HR, 2.3HR, ETC) HEAT EXP HEAT EXP PHEL OPERATOR NUMBER HEAT EXP PH N,1 HEAT EXP N SC: Heat stress survey pers heat exposure limit time operator HEAT EXP PHEL RECOVERY TIME HEAT EXP PH T N HEAT EXP W SC: Heat stress survey PHEL recovery time HEAT SURV C C,75 N HTSTRESS E HEAT SURVEY COMMENTS SC: Remarks concerning the specified heat stress survey HEAT\_SURVEY DRY BULB TEMP HEAT SURV D N,5 N HTSTRESS E SC: Heat stress survey dry bulb temperature reading HEAT SURVEY FUEL PRESENT IND HEAT SURV F L HTSTRESS E N SC: Indicator (Y7N) to represent whether fuel was present during survey

HEAT SURV G N,5 N

HTSTRESS E

| SC: | Heat | stress | survey | globe | temperature |
|-----|------|--------|--------|-------|-------------|
|-----|------|--------|--------|-------|-------------|

| HEAT_SURVEY_OUT_DRY_BULB_TEMP SC: Heat stress survey outer dry    |                                | N,5                | N           | HTSTRESS             | E |
|---|--------------------------------|--------------------|-------------|----------------------|---|
| HEAT SURVEY OUT WET BULB TEMP<br>SC: Heat stress survey outer wet | HEAT SURV O                    | N,5<br>ire         | N           | HTSTRESS             | E |
| HEAT SURVEY SAMPLE DATE SC: Date of the specified survey          |                                | D                  | Y           | HTSTRESS             | E |
| HEAT SURVEY SAMPLE LOCATION SC: Physical location of the heat     | HEAT SURV S<br>t stress survey | C,25               | Y           | HTSTRESS             | E |
| HEAT SURVEY SAMPLE TIME<br>SC: Time of the specified heat so      | HEAT SURV S<br>tress survey    | T                  | N           | HTSTRESS             | E |
| HEAT SURVEY WET BULB TEMP SC: Heat stress survey wet bulb         | HEAT SURV W                    | N,5<br>ading       | N           | HTSTRESS             | E |
| HEAT_SURVEY_WET_BULB_TEMP_INDEX SC: Heat stress survey wet bulb   | HEAT SURV W                    | N,6<br>dex         | N           | HTSTRESS             | Ē |
| IMMUNIZATION BATCH NUMBER<br>SC: THE BATCH NUMBER OF THE SPEC     | IMMUNBATCHN<br>IFIC IMMUNIZAT: | N, 10<br>ION MATER | N<br>IAL D  | IMMUNIZA<br>ISPENSED | W |
| IMMUNIZATION CREW ALLERGY IND SC: Identification of crew membe    | IMMUNCRWALR<br>r allergies     | C,50               | N           | IMMUNIZA             | W |
| IMMUNIZATION DATE SC: Date of the last specific ty                | IMMUN DATE<br>pe immunization  | D<br>n             | Y           | IMMUNIZA             | W |
| IMMUNIZATION DOSAGE<br>SC: THE SPECIFIC IMMUNIZATION DO           |                                |                    | N           | IMMUNIZA             | W |
| IMMUNIZATION_DUE_DATE SC: Date for the next immunizati            | IMMUN DUE D on of a specif:    | D<br>ic type       | N           | IMMUNIZA             | W |
| IMMUNIZATION_INDICATOR SC: Indicates eligibility for a            | IMMUN IND specific immun       | L<br>ization       | N           | IMMUNIZA             | W |
| IMMUNIZATION PROVIDER NAME<br>SC: NAME/RANK/RATE OF THE PERSON    |                                |                    | N<br>NIZAT: | IMMUNIZA<br>ION      | W |
| IMMUNIZATION TYPE SC: Indicates the type of immuni                | IMMUN TYPE<br>zation (e.g. C   | C,25<br>holera, T  | Y<br>yphoi  | IMMUNIZA<br>d)       | W |

Long Comment :

IMMUNIZATION TYPE CAN BE:

SMALLPOX YELLOW FEVER
TETANUS CHOLERA
INFLUENZA PLAGUE TYPHOID POLIO

GAMMA GLOBULIN

OTHER (AS SPECIFIED)

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INJURY

INJURY

N

N

SC: DESCRIPTION OF THE CIRCUMSTANCES OF THE INJURY INJURY DATE INJDAT D Y INJURY SC: DATE OF THE INJURY INJURY DIAGNOSIS INJDIAG C.120 N INJURY SC: BRIEF DESCRIPTION OF THE MEDICAL REPRESENTATIVE'S DIAGNOSIS INJURY DISABILITY INJDISABL INJURY L N SC: INDICATES WHETHER THE INJURY RESULTS IN THE MEMBER'S DISABILITY INJURY FIRST SEEN DATE INJFIRDAT D INJURY SC: DATE THE MEMBER WAS FIRST SEEN WRT THIS INJURY INJURY FIRST SEEN TIME INJFIRTIM INJURY SC: TIME OF THE FIRST EVALUATION FOR THIS INJURY C,120 N INJURY LOCATION INJLOC INJURY SC: BRIEF DESCRIPTION OF THE LOCATION WHERE THE INJURY OCCURRED C,25 INJURY LOCATION OF ACCIDENT ACC LOC N TNJURY W SC: DESCRIPTION OF THE LOCATION OF THE ACCIDENT INJURY MED DEPT NAME C,50 INJMEDNAM N TNJURY SC: NAME/RANK OF THE MEDICAL DEPARTMENT REPRESENTATIVE REPORTING DATA INJURY\_MISHAP\_REPORT IND INJURY INJMISHAP N SC: INDICATES THE REQUIREMENT FOR AN INTERNAL/EXTERNAL MISHAP REPORT INJURY PROGNOSIS INJPROG C, 120 N INJURY SC: BRIEF DESCRIPTION OF THE INJURED PROGNOSIS INJURY REPORT DATE INJREPDAT D TNJIIRY SC: DATE THE INJURY REPORT WAS SUBMITTED FOR THE SPECIFIED INJURY INJURY REPORT INDICATOR INJREPIND INJURY SC: INDICATES IF AN INJURY REPORT HAS BEEN SUBMITTED N, 5 INJURY SEQUENCE NUMBER INJSEQNUM Y INJURY SC: SEQUENTIAL NUMBER FOR TRACKING MEMBER MEDICAL INCIDENTS (YYNNN)

INJSTRTIM

INJSUBCON

SC: CODE NUMBER IDENTIFIES THE CONDITION OF THE SUBJECT MEMBER

T

N, 9

Long Comment : SUBJECT CONDITION CODES:

SC: START TIME OF THE INJURY

INJURY SUBJECT CONDITION CODE

- 1 ALCOHOL
- 2 TRUCULENT
- 3 UNCOORDINATED

INJURY START TIME

- 4 STAGGERING
- 5 UNSTEADY
- 6 INCOHERENT
- 7 SEMI-CONSCIOUS

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8 - COUGHING 9 - NORMAL

C,120 INJURY TREATMENT INJTRT N INJURY SC: BRIEF DESCRIPTION OF THE TREATMENT RENDERED INJURY WITNESS DEPARTMENT INJWITDEP N C,10 INJURY W SC: THE DEPARTMENT TO WHICH A WITNESS TO THE INJURY IS ASSIGNED INJURY WITNESS DIVISION INJWITDIV C, 25 N INJURY SC: DIVISION TO WHICH A WITNESS TO THE INJURY IS ASSIGNED INJURY WITNESS NAME INJWITNAM C,45 INJURY SC: NAME/RANK/RATE OF A WITNESS TO THE INCIDENT INVENTORY DATE INVDATE D Y INVENTOR E SC: DATE OF THE SPECIFIED INVENTORY N INVENTORY LOCATION INVLOC C,50 INVENTOR E SC: DESCRIPTION OF THE LOCATION OF THE SPECIFIC INVENTORY (1st AID LOCKER) INVENTORY TYPE C, 25 INVTYP Y INVENTOR E SC: DESCRIPTION OF THE TYPE OF INVENTORY: MAJOR, MINOR, LITTER, ETC INV ITEM ALLOWANCE INVALW N, 4 N INVENTOR E SC: THE AUTHORIZED/ALLOWED NUMBER OR QUANTITY OF THE SPECIFIED ITEM INV ITEM EXPIRATION DATE INVEXPDT D N INVENTOR E SC: DATE OF EXPIRATION OF SPECIFIED ITEMS INV ITEM FIRST INSPECTION DATE INVFIRINSP D N INVENTOR E SC: DATE THE SPECIFIED ITEM WAS FIRST INSPECTED ONBOARD INV TTEM INSPECTION CODE INVINSPCODE C,1 N INVENTOR E SC: CODE TO INDICATE THE TYPE OF INSPECTION (R-RECEIPT, I-ISSUE) INV ITEM INSPECTION DATE INVITINSPDT D N INVENTOR E SC: THE DATE A SPECIFIED ITEM WAS INSPECTED INV ITEM INSPECTION DUE DATE INVINSPDU D N INVENTOR E SC: DATE OF THE NEXT INSPECTION FOR A SPECIFIED ITEM INV ITEM LOCAL MANUFACTURER INVLOCMANF C.50 N INVENTOR E SC: THE NAME/ADDRESS OF A LOCAL MANUFACTURER OF THE SPECIFIED ITEM INV ITEM LOT NUMBER N, 7 INVLOTNUM INVENTOR E N SC: FOR THOSE ITEMS PRODUCED IN LOTS (IE SERUMS) THE NUMBER FOR TRACKING INV ITEM MANUFACTURE DATE INVMANFDT INVENTOR E D N SC: DATE THE SPECIFIED ITEM WAS MANUFACTURED INV ITEM NATIONAL STOCK NUMBER INVNSN N, 15 N INVENTOR E SC: THE NATIONAL STOCK NUMBER OF THE ITEM INVENTORIED INV ITEM NOMENCLATURE INVITMNOM C,50 N INVENTOR E

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SC: THE NOUN NAME OF THE INVENTORY ITEM INV ITEM QUANTITY ON HAND INVOOH N, 4 N INVENTOR E SC: THE QUANTITY OF THE ITEM BEING INVENTORIED INV ITEM SHELF LIFE INVSHELF N, 3 N INVENTOR E SC: THE SHELF LIFE IN MONTHS OF A SPECIFIED ITEM AS NECESARY INV ITEM TYPE INVITMTYP C,25 N INVENTOR E SC: MAKE/MODEL/MARK DESCRIPTION OF THE SPECIFIED ITEM (IE LITTERS) INV ITEM UNIT OF ISSUE INVUNIT ISS C, 25 N INVENTOR E SC: THE ITEM'S UNIT OF ISSUE (ROLL, DOZEN, OUNCE, MILLIGRAM) LAB TEST COMMENTS LABTESTCMNT C,120 LAB TEST W SC: COMMENTS CONCERNING THE SPECIFIED LABORATORY TEST LAB TEST DATE LABTESTDAT N LAB TEST W SC: DATE OF THE SPECIFIED LABORATORY TEST LAB TEST RESULT LABTESTRESU C,50 N LAB TEST W SC: RESULTS OF THE SPECIFIED LABORATORY TEST LAB TEST SEQUENCE NUMBER LABSEONBR N, 6 Y LAB TEST W SC: SEQUENTIAL NUMBER OF LAB TESTS FOR TRACKING PURPOSES (YYNNNN) LAB TEST TYPE LABTESTTYPE C,45 N LAB TEST W SC: DESCRIBES THE SPECIFIC LABORATORY TEST CONDUCTED LENS TYPE EYELNTY C,1 N VISION W SC: TYPE OF EYEWEAR THE MEMBER USES Long Comment : TYPE OF EYEWEAR LENSES: S - SINGLE B - BIFOCAL

T - TRIFOCAL

M - MULTI

\_ - SPACE INDICATES NO EYEWEAR REQUIRED

| MEDICAL CHIT DIAGNOSIS<br>SC: DIAGNOSIS OF THE MEMBER'S  | MEDCHTDIAG<br>CONDITION REQUIR  | C,70<br>RING THE | N<br>MEDICA | MEDCHIT | W |
|--|---------------------------------|------------------|-------------|---------|---|
| MEDICAL_CHIT_EFFECTIVE_DATE SC: THE EFFECTIVE DATE OF THE 1  |                                 | D                | Y           | MEDCHIT | W |
| MEDICAL CHIT EXPIRATION DATE SC: DATE OF EXPIRATION OF THE PARTIES |                                 | D                | N           | MEDCHIT | W |
| MEDICAL CHIT ISSUING ACTIVITY SC: THE ACTIVITY THAT ORIGINAT   | MEDCHTISSAC<br>ED THE MEDICAL ( | C,40<br>CHIT     | N           | MEDCHIT | W |
| MEDICAL_CHIT_REASON<br>SC: REASON FOR ISSUING THE MED  |                                 | C,70             | N           | MEDCHIT | W |

| MEDICAL CHIT_TO ACTIVITY MEDCHTTOACT C,40 SC: ACTIVITY TO WHICH THE CHIT IS FOWARDED (E.G. MEMBER'S  | ,                                |
|--|----------------------------------|
| MEDICAL CHIT TYPE MEDCHITTYPE C,25<br>SC: DESCRIBES THE TYPE OF MEDICAL CHIT (E.G. UP/DOWN, LI   | Y MEDCHIT W                      |
| MEDICAL CONSULT DATE MEDICAL CONSULT WAS CONDUCTED WITH THE MEME   | Y MEDCONS W                      |
| MEDICAL CONSULT DIAGNOSIS MEDCONSDIAG C,120 SC: DESCRIPTION OF THE DIAGNOSIS REQUIRING AN EXTERNAL M   | N MEDCONS W<br>MEDICAL CONSULT   |
| MEDICAL CONSULT FOLLOW UP IND MEDCONSFOLL L<br>SC: INDICATES WHEN A MEDICAL CONSULT REQUIRES ADDITIONAL  | n medcons w<br>Follow-up         |
| MEDICAL_CONSULT_LOCATION MEDCONSLOC C,75 SC: INDICATES THE PLACE OF THE REFERRED MEDICAL CONSULTA  | n medcons w<br>Ation             |
| MEDICAL CONSULT PREVIOUS RESULTS MEDICONSPREV C, 120 SC: DESCRIBES THE RESULTS OF A PREVIOUS MEDICAL CONSULTA  | N MEDCONS W                      |
| MEDICAL CONSULT PROVIDER NAME EXTPRONAM C,120 SC: NAME/TITLE/ADDRESS OF THE MEDICAL PROVIDER FOR THE PROVIDE | N MEDCONS W<br>MEDICAL CONSULT   |
| MEDICAL CONSULT PROVIDER NUM MEDCONSPROV N,15<br>SC: THE LICENSE NUMBER/SSN OF THE EXTERNAL MEDICAL SERVI  | N MEDCONS W                      |
| MEDICAL_CONSULT_REASON MEDCONSREAS C,79 SC: REASON FOR REFERRAL TO EXTERNAL MEDICAL SERVICES CON   | N MEDCONS W<br>NSULTATION        |
| MEDICAL_CONSULT_REFERRAL TO MEDCONSREFT C,50 SC: DESCRIBES WHAT EXTERNAL ACTIVITY THE MEDICAL CONSULT  | N MEDCONS W<br>T WAS REFERRED TO |
| MEDICAL CONSULT REPORT RECEIVED MEDCONSREPT L<br>SC: INDICATES IF THE MEDICAL CONSULT REPORT HAS BEEN REC  | CEIVED                           |
| MEDICAL CONSULT TIME MEDICAL TO THE MEMBER  SC: TIME OF THE MEDICAL CONSULT FOR THE MEMBER   | n medcons w                      |
| MEDICAL CONSULT TYPE MEDCONSTYPE C,1<br>SC: CODE TO INDICATE THE TYPE OF MEDICAL CONSULT (TYPE:  | Y MEDCONS W                      |
| MEDICAL_DEPT_LOCATION MEDDEPLOCA C,25 SC: LOCATION OF THE MEDICAL DEPT OFFICE  | N MEDICAL E                      |
| MEDICAL DEPT PHONE MEDDEPPHON N,7<br>SC: PHONE NUMBER OF THE MEDICAL OFFICES   | N MEDICAL E                      |
| MEDICAL DEPT REPRESENTATIVE NAME MEDSENIORNA C,50 SC: NAME/RANK/RATE OF THE SENIOR MEMBER ASSIGNED TO THE  | Y MEDICAL E<br>MEDICAL FACILITY  |
| MEDICAL DEPT REPRESENTATIVE SSN MEDDEPTREPS N,15<br>SC: THE SOCIAL SECURITY NUMBR OF THE SENIOR MEDICAL DEPT   | N MEDICAL E<br>I REPRESENTATIVE  |
| MEDICAL_ID_TAG_INDICATOR MED ID TAG L SC: Indicates if medical alert id tag has been issued to   | N IMMUNIZA W                     |

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| MEDICAL ID TAG ISSUE DATE SC: Date of issue of medical ale            | MED ID TAG<br>rt id tag        | D                 | N          | IMMUNIZA               | W       |
|---|--------------------------------|-------------------|------------|------------------------|---------|
| MEDICAL ID TAG SIGNATURE IND<br>SC: SIGNATURE OF MED ALERT TAG I      | MED ID SIG<br>SSUER            | r                 | N          | IMMUNIZA               | W       |
| MEDICAL MEMBER NAME<br>SC: THE NAME OF A MEMBER IN THE                | MEDMBRNAM<br>COMMAND MEDI:A    | C,45<br>L RECORD  | n<br>Files | MEMBER<br>/Database    | E       |
| MEDICAL MEMBER SSN<br>SC: THE SOCIAL SECURITY NUMBER O                | MEDMBRSSN<br>F A SPECIFIC M    | N,12<br>EMBER IN  | Y<br>The C | MEMBER<br>OMMAND       | E       |
| MEDICAL RADIATION SURVEILL IND SC: INDICATES IF THE COMMAND HAS       | MEDRADSURVE<br>A RADIATION S   | L<br>URVEILLAN    | N<br>CE IN | MEDICAL<br>PLACE       | E       |
| MEDICAL RAD HEALTH OFFICER NAME<br>SC: THE NAME/RANK/RATE OF THE CO   | MEDRADHEALN<br>MMAND'S RADIAT  | C,50<br>ION HEALT | n<br>H off | MEDICAL<br>ICER        | E       |
| MEDICAL RAD HEALTH OFFICER SSN<br>SC: RADIATION HEALTH OFFICER'S S    | MEDRADHEALS<br>OCIAL SECURITY  | n,15<br>Number    | N          | MEDICAL                | E       |
| MEDICAL STATUS INDICATOR<br>SC: INDICATES IF A MEDICAL CHIT           |                                |                   |            |                        | W       |
| MEDICINAL AUTHORIZATION REQUIRED SC: Indicator (y/n) to determine     | MEDAUTHREQD<br>if NSN is a c   | L<br>ontrolled    | N<br>medi  | MEDICINA<br>cinal      | W       |
| MEDICINAL ISSUE DATE<br>SC: DATE OF THE MEDICINAL ISSUE               |                                |                   |            | MEDICINA               |         |
| MEDICINAL_ISSUE_TIME SC: Time of medicinal issue                      |                                |                   |            |                        |         |
| MEDICINAL_NSN<br>SC: National stock number of med                     | MEDNSN<br>licinal issued       | C,13              | N          | MEDICINA               | W       |
| MEDICINAL NSN_LOCATION SC: Location of NSN. "working st               |                                |                   |            | _                      |         |
| MEDICINAL PATIENT NAME SC: Name/rank/rate of the patient              | MEDPATIENTN<br>at to which med | C,45<br>icinal wa | N<br>s iss | MEDICINA<br>ued        | W       |
| MEDICINAL PRESCRIPTION NUMBER SC: Number assigned to the prescription |                                |                   | Y          | MEDICINA               | W       |
| MEDICINAL QUANTITY ISSUED SC: DESCRIBES THE QUANTITY OF SE            | MEDQTYISSUE<br>ECIFID MEDICIN  | C,50<br>AL ISSUED | N<br>(ie   | MEDICINA<br>30 x 300mg | W<br>:) |
| MEMBER ALLERGY INDICATOR<br>SC: INDICATES IF THE MEMBER HAS           |                                | L                 | N          | MEMBER                 | E       |
| MEMBER BODY FAT PERCENT<br>SC: MEMBER'S PERCENT BODYFAT               | MEMBODYFAT                     | N, 2              | N          | MEMBER                 | E       |
| MEMBER_HEIGHT   | MEMHT                          | N,3,1             | N          | MEMBER                 | E       |

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SC: MEMBER'S HEIGHT IN INCHES

MEMBER\_MEDICAL\_SURVEILLANCE\_IND MEMMEDSURV L N MEMBER E SC: INDICATES IF A MEMBER IS PART OF THE MEDICAL SURVEILANCE PROGRAM

MEMBER RH ABO BLOOD TYPE MEMBLOOTTYP C,25 N MEMBER E SC: THE MEMBER'S BLOOD TYPE AND RH FACTOR

MEMBER\_WEIGHT MEMWGT N,4,1 N MEMBER E SC: MEMBER'S WEIGHT IN POUNDS (THE NEAREST .5 POUNDS)

MEMBER WEIGHT CONTROL PROGRAM MEMWGTCONTR L N MEMBER E SC: INDICATES IF THE MEMBER IS ON A MANDATORY WEIGHT CONTROL PROGRAM

MISCONDUCT\_CODE MISCON N,1 N INJURY W
SC: CODE TO INDICATE MISCONDUCT/ NOT MISCONDUCT

Long Comment : MISCONDUCT CODES:

1 - MISCONDUCT NOT IN LINE OF DUTY

2 - MISCONDUCT IN LINE OF DUTY

3 - NOT MISCONDUCT

PEST CONTROL PEST COUNT

PEST CONTROL SIGNATURE

SC: Pest control pest count

NUMBER OF DAYS LOST LOSSDAY N, 3 INJURY N SC: INDICATES THE NUMBER OF MAN DAYS LOST DUE TO THE INCIDENT PEST CON TY C,25 PEST CONTOL TYPE OF PEST N PEST CON E SC: Description of the type of pest affected by control action PEST CONTROL ACTION PESTACTION C, 25 Y PEST CON E SC: Description of pest control action taken PEST CONTROL COMMENTS PEST CON CM C,50 N PEST CON E SC: Comments associated with pest control action Y PEST CONTROL DATE PEST CON DA PEST CON E SC: Date of pest control action PEST CONTROL FOLLOW UP DATE PEST CON FO N PEST CON **.** SC: Pest control action follow up date PEST CONTROL OPERATOR INITIAL PEST CON OP С,3 N PEST CON SC: Operator initials at the time of pest control log entry PEST CONTROL PESTICIDE AMOUNT PEST CON PE N. 4 N PEST CON SC: Amount of pest control pesticide used PEST CONTROL PESTICIDE TYPE PEST CON PE C,10 N PEST CON E SC: Type of pest control pesticide used

PEST CON CO

SC: Pest control action must have authorization signature

PEST CON SI C,25

N, 4

N

N

PEST CON

PEST CON E

E

PEST CONTROL SPACE SPRAYED PEST CON SP C,25 Y PEST CON E

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SC: Description of space in which pest control spraying took place PHYSICAL CLINICAL EVALUATION TYP PHYCLINEVAL N, 2 PHYSICAL E SC: CODE TO IDENTIFY THE TYPE(S) OF CLINICAL EVALUATION CONDUCTED Long Comment : CLINICAL EVALUATION CODES: 1 - HEAD/NECK/FACE/SCALP 14 - ABDOMEN AND VISCERA 2 - NOSE 15 - ANUS AND RECTUM 3 - SINUSES 16 - ENDOCRINE SYSTEM - MOUTH/THROAT 17 - G-U SYSTEM 18 - UPPER EXTREMITIES -- EARS (GENERAL) - DRUMS 19 - FEET 20 - LOWER EXTREMITIES - EYES (GENERAL) 21 - SPINE/OTHER MUSCULOSKELETAL - OPTHALMOSCOPIC 22 - IDENTIFYING BODY MARKS (SCARS, ETC - PUPILS 23 - SKIN, LYMPHATICS 10 - OCULAR MOBILITY 11 - LUNGS/CHEST 24 - NEUROLOGIC 12 - HEART 25 - PSYCHIATRIC 13 - VASCULAR SYSTEM 26 - PELVIC (FEMALE V/R) PHYSICAL\_EXAM COMMENTS PHYSCOMNT C,120 N PHYSICAL E SC: COMMENTS REGARDING THE SPECIFIED PHYSICAL EXAM PHYSICAL EXAM DATE PHYEXDAT D Y PHYSICAL E SC: DATE OF THE LAST EXAM PHYSICAL EXAM DUE DATE PHYEXDU D N PHYSICAL E SC: DATE OF THE NEXT EXAM PHYSFACILIT C,78 N PHYSICAL E PHYSICAL EXAM FACILITY SC: THE NAME/ADDRESS OF THE FACILITY WHERE PHYSICAL EXAM WAS CONDUCTED PHYSICAL EXAM INDICATOR PHYEXIND N PHYSICAL E SC: INDICATES ELIGIBILITY FOR A PHYICAL EXAM PHYSICAL EXAM RECOMMENDATIONS PHYSREX C,120 N PHYSICAL E SC: RECOMMENDATIONS FOR FURTHER PHYSICAL EXAMINATIONS AS NECESSARY C,79 PHYSICAL EXAM RESULTS PHYSRESLT PHYSICAL E SC: RESULTS OF THE SPECIFIED PHYSICAL EXAM PHYSICAL EXAM TYPE PHYEXTYP N, 2 Y PHYSICAL E

Long Comment:

PHYSICAL EXAM TYPES:

SC: INDICATES THE TYPE OF PHYSICAL EXAM

- 1 PHYSICAL
- 2 AVIATION
- 3 DIVER
- 4 SUBMARINE
- 5 NUCLEAR
- 6 RADIATION PROGRAMS

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7 - OPTHOOLOGY

8 - FOOD SERVICE

9 - BARBER

10 - LAUNDRY WORKER

11 - CHT SYSTEM WORKER

12 - GYNECOLOGICAL 13 - PAP

14 - 99: OTHER AS REQUIRED

| PHYSICAL MED SURVEILLANCE IND PHYSMEDSURV L N PHYSICAL SC: INDICATES IF THE SPECIFIED PHYSICAL EXAM IS PART OF MED SURVEILLA | L E         |
|--|-------------|
| PHYSICAL PHYSICIAN NAME PHYSNAME C,45 N PHYSICAL SC: NAME/RANK/TITLE OF THE PHYSICIAN CONDUCTING THE SPECIFIED PHYSICAL      | L E         |
| PHYSICAL PURPOSE FOR EXAM PHYPURPOSE C,50 N PHYSICAL SC: DESCRIBE THE PURPOSE OF THE PHYSICAL EXAM (ANNUAL, DISCHARGE, OCS   |             |
| PHYSICAL QUALIFICATION INDICATOR PHYSQUAL L N PHYSICAL SC: INDICATES IF MEMBER IS/IS NOT PHYSICALLY QUALIFIED FOR SPECIFIED  | L E<br>DUTY |
| PPD_COMMENTS PPD CMNT C,50 N IMMUNIZA<br>SC: Comments concerning crew member PPD   | A W         |
| PPD CONVERTER INDICATOR PPD CONV IN L N IMMUNIZATION SC: Indicates if a crew member has had a reaction to the PPD test       | A W         |
| PPD_LAST_EVAL_DATE PPD LAST DA D N IMMUNIZA<br>SC: Date of last PPDevaluation  | A W         |
| PPD_NEXT_EVAL_DATE PPD NEXT DA D N IMMUNIZA  | A W         |
| PPD_REQUIRED_FOLLOW_UP_COMPLETE PPD REQD FO L N IMMUNIZATION SC: Indicates if required PPD follow up actions are complete    | A W         |
| PPD_SCREEN_DATE PPD SCRN DA D N IMMUNIZA<br>SC: Date of the last PPD screen test   | A W         |
| PPD_SCREEN_DUE_DATE PPD SCRN DU D N IMMUNIZA SC: Date when next PPD screen test is due                                       | A W         |
| PUBLICATION AUTHOR OR ORIG PUB AUTH OR C,25 N MED LIBS SC: The publication author's or originator's name or title            | R E         |
| PUBLICATION_DATE PUB DATE D N MED LIBS SC: Date of the publication   | R E         |
| PUBLICATION_NUMBER PUBNBR C,10 Y MED LIBS SC: Number of the publication or instruction                                       | R E         |
| PUBLICATION_PUBLISHER_NAME PUB PUBLISH C,25 N MED LIBS SC: Name of the publisher of the publication                          | R E         |
| PUBLICATION_REVISION_CHANGE PUB REV N, 2 N MED LIB   | R E         |

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SC: The most current revision or change to the publication PUBLICATION TITLE PUBTITLE C, 25 Y MED LIBR E SC: Title of the publication or instruction RADIATION CODE C, 2 RADEXP SC: INDICATES THE TYPE OF RADIATION EXPOSED C, 25 RAD BIOASSAY ACTIVITY RADBISHPNM N RADEXP SC: NAME OF THE ACTIVITY WHERE THE BIOASSAY WAS PERFORMED RAD BIOASSAY CHEMICAL FORM RADBICFORM C,30 RADEXP SC: THE CHEMICAL FORM OF THE RADIONUCLIDE RAD BIOASSAY COMMENT IND RADBCMTIND L RADEXP SC: INDICATES IF COMMENTS ARE ASSOCIATED WITH THE BIOASSAY RAD BIOASSAY DATE BIODATE RADEXP SC: DATE OF THE LAST BIOASSAY RAD BIOASSAY INDICATOR BIOIND RADEXP SC: INDICATES IF A BIOASSAY HAS BEEN PERFORMED RAD BIOASSAY INSTRUMENT RADBIINSTR C, 25 RADEXP SC: TYPE/NAME OF THE BIOASSAY INSTRUMENT USED RAD BIOASSAY LOCATION RADBILOC C, 25 RADEXP SC: LOCATION THE BIOASSAY WAS PERFORMED RAD BIOASSAY PROBE DESCRIPTION RADBIPROBE C,40 RADEXP SC: NAME/TYPE/DESCRIPTION OF THE BIOASSAY PROBE USED RAD\_BIOASSAY\_PROBE SERIAL NUMBER RADBIPROBNU N, 14 RADEXP SC: SERIAL NUMBER OF THE BIOASSAY PROBE USED RAD BIOASSAY PURPOSE C,79 RADEXP RADBIPUR SC: BRIEFLY DESCRIBES THE PURPOSE FOR THE BIOASSAY RAD\_BIOASSAY\_RADIONUCLIDE TYPE RADBIRDCLD C, 6 RADEXP SC: THE TYPE OF RADIONUCLIDE USED FOR THE BIOASSAY RAD BIOASSAY RESULT RADBIRSLT N, 8 RADEXP SC: INDICATES THE RESULTS OF THE BIOASSAY RAD BIOASSAY SERIAL NUMBER RADBISERNUM N, 14 RADEXP W SC: SERIAL NUMBER OF THE BIOASSAY RAD BIOASSAY TIME RADBITM N, 4 RADEXP SC: TIME THE BIOASSAY WAS PERFORMED RAD BIOASSAY TYPE BIOTYPE C, 1 RADEXP

Long Comment :

TYPE OF LAST BIOASSAY:

SC: CODE TO INDICATE THE TYPE OF BIOASSAY

1 - INITIAL

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2 - PREPLACEMENT

3 - INTERNAL CONTAMINATION
4 - TERMINATION
5 - OTHER

| RAD_BIO_MIN_DETECTABLE_ACTIVITY<br>SC: MINIMUM_DETECTABLE_ACTIVITY  | RADBIMDA<br>OF THE BIOASS  | C,4<br>SAY METER | N<br>IAL    | RADEXP        | W |
|---|----------------------------|------------------|-------------|---------------|---|
| RAD_EXPOSURE_EXTREMITY SC: DOSAGE OF EXPOSURE TO THE E  | EXTREM<br>EXTREMITIES      | N, 6             | N           | RADEXP        | W |
| RAD EXPOSURE SHIP ADDRESS SC: LOCATION OF THE SHIP  | EXSHPADDR                  | C,20             | N           | RADEXP        | W |
| RAD_EXP_COMMENT<br>SC: COMMENTS CONCERNING THE EXE  | EXPCMNT<br>POSURES         | C,79             | N           | RADEXP        | W |
| RAD_EXP_COMMENT_INDICATOR<br>SC: INDICATES COMMENTS ABOUT EX  | EXCMTID<br>SPOSURE READING | L                | N           | RADEXP        | W |
| RAD_EXP_ESTIMATED_INDICATOR<br>SC: INDICATES EXPOSURE TO RADIA  |                            | L                | N           | RADEXP        | W |
| RAD_EXP_LOCATION_SHIP_NAME<br>SC: NAME OF THE SHIP WHERE RADI   | EXPSHPNM<br>ATION EXPOSURE | C,40<br>Was rec  | N<br>EIVED  | RADEXP        | W |
| RAD_EXP_QUARTER_NUMBER<br>SC: THE AMOUNT OF EXPOSURE RECE   | EXPOTR<br>CIVED FOR THE (  | N,7<br>QUARTER S | Y<br>PECIFI | RADEXP<br>ED  | W |
| RAD_EXP_RECORD_TYPE SC: THE RADIATION RECORD TYPE   | EXRECTYP                   | C,1              | N           | RADEXP        | W |
| Long Comment: RECORD TYPE: I - INITIAL LOAD R - RECORD AUDIT A - EXPOSURE ADD V - VISITOR T - TRANSFER Y - ANNUAL AUDIT |                            |                  |             |               |   |
| RAD_NXP_RESULT_GAMMA SC: THE RESULTANT READING OF GA  | EXGAMRS<br>AMMA EXPOSURE   | N, 5             | N           | RADEXP        | W |
| RAD_EXP_RESULT_NEUTRON<br>SC: RESULTANT EXPOSURE TO NEUTR   | EXNEURS<br>RON RADIATION   | <b>N,</b> 5      | N           | RADEXP        | W |
| RAD_EXP_SEQUENCE_NUMBER<br>SC: SEQUENCE_NUMBER_TO_TRACK_MU  | EXSEQN<br>JLTIPLE ENTRIES  | N,3<br>S ON THE  | Y<br>SAME D | RADEXP<br>ATE | W |
| RAD EXP SKIN DOSAGE<br>SC: AMOUNT OF RADIATION SKIN DO  | EXSKIN<br>DSAGE            | N, 5             | N           | RADEXP        | W |
| RAD_EXP_START_DATE  | EXSTRDT                    | D                | N           | RADEXP        | W |

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SC: DATE EXPOSURE PERIOD BEGAN

RAD EXP STOP DATE EXSTPDT D N RADEXP W

SC: DATE EXPOSURE PERIOD ENDED

RAD\_EXP\_TLD\_TYPE TLDTYPE C,4 N RADEXP W

SC: TYPE OF THERMAL LUMINESCENT DEVICE USED TO RECORD RADIATION

Long Comment :

TLD TYPES:

CAFL

LIF2

LIF4

FILM

OTHR

| RAD_EXP_TOTAL_LIFE_NUMERIC EXTLIFE SC: RADIATION_EXPOSURE LIFE TO DATE              | N,7              | Ň                 | RADEXP                | W |
|---|------------------|-------------------|-----------------------|---|
| RAD_EXP_TOTAL_LIFE_TO_DATE EXTL2DT SC: A TOTAL OF LIFETIME RADIATION EXPOSURE T     | N,6<br>O A GIVEN | N<br>D <b>ATE</b> | RADEXP                | W |
| RAD_EXP_TOTAL_PERIOD_COUNT EXTOTPD SC: TOTAL OF EXPOSURES FOR THE PERIOD            | N, 6             | N                 | RADEXP                | W |
| RAD_EXP_VISITOR_MEMBER_INDICATOR VISTIN SC: INDICATES WHETHER CREWMEMBER OR VISITOR | L                | N                 | RADEXP                | W |
| RAD NON REPORTING VISITOR IND NORPTVIS SC: INDICATES IF VISITOR'S ORGANIZATION TRAC |                  |                   | RADEXP                | W |
| RAD_PERMISSIBLE_LIFETIME_COUNT RADPERMEXP<br>SC:_LIFETIME_RADIATION_EXPOSURE_COUNT  | N, 7             | N                 | RADEXP                | W |
| RAD_TOTAL_EXPOSURE TOTEXP SC: TOTALS OF ALL EXPOSURES FOR THE PERIOD                | N, 6             | N                 | RADEXP                | W |
| RETURN DATE RINDAT SC: ESTIMATED DATE OF MEMBER'S RETURN TO DUT                     |                  | И                 | INJURY                | W |
| SAFETY HAZARD INDICATOR SAF HAZ<br>SC: INDICATES IF THE INCIDENT REVEALS A SAFE     | L<br>TY HAZARD   | N<br>REQUIE       | INJURY<br>RING ACTION | W |
| SICKCALL BLOOD PRESSURE SYSTOLC SICKBPSYS<br>SC: SYSTOLIC BLOOD PRESSURE            | N, 3             | N                 | SICKCALL              | W |
| SICKCALL BLOOD PRESS DIASTOLIC SICKBPDIAS SC: DIASTOLIC BLOOD PRESSURE              | N, 3             | N                 | SICKCALL              | W |
| SICKCALL BODY TEMP SICKBODTMP SC: MEMBER'S BODY TEMP DURING AT SICKCALL             | N,5              | N                 | SICKCALL              | W |
| SICKCALL_DATE SICKCALL SICKCALL   | D                | Y                 | SICKCALL              | W |

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| -  |             |                      |   |
|--|-------------|----------------------|---|
| SICKCALL DISPOSITION COMMENTS SICKDISPCOM C,120 SC: COMMENTS CONCERNING THE MEMBER'S MEDICAL DISPOSITION COMMENTS CONCERNING THE MEMBER'S MEDICAL DISPOSITION COMMENTS SICKDISPCOM C,120 SC: COMMENTS CONCERNING THE MEMBER'S MEDICAL DISPOSITION COMMENTS SICKDISPCOM C,120 SC: COMMEN | n<br>On     | SICKCALL             | W |
| SICKCALL DISPOSITION TYPE SICKDISTYP N,1<br>SC: THE DISPOSITION TYPE OF THE CREWMEMBER AT SICKCALL   | N           | SICKCALL             | W |
| SICKCALL_ESTIMATED_DAYS SICKESTDAY N,3<br>SC: ESTIMATED NUMBER OF DAYS FOR CONDITION TO EXIST  | N           | SICKCALL             | W |
| SICKCALL FOLLOW UP DATE SICKFOLLOWD D<br>SC: FOLLOW UP DATE FOR THE MEMBER IF REQUIRED   | N           | SICKCALL             | W |
| SICKCALL FOLLOW UP TIME SICKFOLLOWT T<br>SC: SCHEDULED TIME OF THE FOLLOW UP VISIT   | N           | SICKCALL             | W |
| SICKCALL_MED_FACILITY_LOCATION SICKFACLOC C,50 SC: LOCATION OF THE MEDICAL FACILITY CONDUCTING THE SI  | CK CAL      | <b>L</b>             |   |
| SICKCALL PULSE RATE SICKPULSRT N,3 SC: MEMBER'S PULSE RATE   | N           | SICKCALL             | W |
| SICKCALL RESPIRATION SICKRESPRT N, 3<br>SC: MEMBER'S RESPIRATORY RATE DURING THE ENCOUNTER   | N           | SICKCALL             | W |
| SICKCALL START TIME SICKSTART T SC: TIME THE MEDICAL ENCOUNTER BEGAN DURING SICKCALL   | ¥           | SICKCALL             | W |
| SICKCALL_TREATMENT_COMPLETE_IND SICKTRMTCOM L<br>SC: INDICATES IF THE MEDICAL TREATMENT WAS COMPLETED  | N           | SICKCALL             | W |
| SICKCALL VIA TRANSPORTATION SICKVIATRA C,20<br>SC: INDICATES IF THE MEMBER WAS TRANSPORTED TO THE SIC  | N<br>K CALL | SICKCALL<br>LOCATION | W |
| UNDER THE INFLUENCE CODE UND INF N,1<br>SC: INDICATES IF THE SUBJECT WAS UNDER THE INFLUENCE O   | n<br>F some | INJURY<br>TYPE       | W |
| Long Comment: UNDER THE INFLUENCE CODES:  1 - ALCOHOL  2 - BARBITUATES  3 - NARCOTICS  4 - OTHER AS SPECIFIED  5 - NOT UNDER THE INFLUENCE  6 - NOT ABLE TO DETERMINE  |             |                      |   |
| WATER_BACTERIA_TEST_RESULTS WTRBAC C,3 SC: RESULT OF WATER BACTERIA TEST (POS OR NEG)  | N           | WATER                | E |

WTRCMNT

WTRTESTDAT D N

WTRLOC C,50 N WATER E

WATER TEST COMMENT

WATER\_TEST\_LOCATION

SC: DATE OF THE WATER TEST

WATER\_TEST\_DATE

SC: COMMENTS CONCERNING THE WATER TEST

C,79 N WATER

E

E

WATER

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SC: DESCRIPTION OF THE WATER SOURCE TESTED

WATER TEST SEQUENCE NUMBER WTRSAMPNBR SC: NUMERIC VALUE OF THE WATER TEST SOURCE N, 2 WTRSAMPNBR WATER E

WATER TEST SOURCE WTRSRC SC: THE SOURCE OF THE WATER SAMPLE TESTED C, 25 N WATER E

RULE REPORT FOR MEDICAL - VERSION 2.11

Rules for HEAT EXPOSURE

IF HEAT\_EXP\_PHEL\_OPERATOR\_NUMBER > 1
THEN REPEAT ATTRIBUTES

Rules for IMMUNIZATION

Rules for INJURY

IF INCIDENT\_WITNESS\_NAME
> 1
THEN REPEAT ALL INCIDENT\_WITNESS

Rules for LAB TESTS

IF OTHER\_LAB\_STUDIES\_1 > 1
THEN REPEAT ALL "OTHER" ATTRIBUTES

Rules for RADIATION EXPOSURE

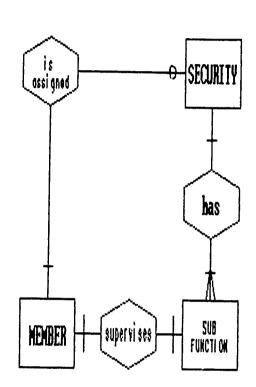
IF RAD\_EXP\_QUARTER\_NUMBER = 1,2,3,4 THEN REPEAT Q

•

# APPENDIX E

# SECURITY ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the SAFETY function as discussed in Chapter IV.



STRUCTURE REPORT FOR SECURITY - VERSION 2.11

## MEMBER =

SECURITY MEMBER SSN

- + SECURITY MEMBER DIVISION
- + SECURITY\_MEMBER NAME
- + SECURITY\_MEMBER\_SUB-FUNCTION

# SECURITY =

SECURITY OFFICER NAME

- + SECURITY OFFICER PHONE
- + SECURITY OFFICE LOCATION

## SUBFUNCTION =

SECURITY\_SUBFUNCTION\_NAME

`

ATTRIBUTE REPORT FOR SECURITY - VERSION 2.11

| Attribute Name   | Alias                        | Format            | Key         | Object & !            | Гуре |
|--|------------------------------|-------------------|-------------|-----------------------|------|
| SECURITY MEMBER DIVISION SC: DIVISION TO WHICH A MEMBER      |                              | C,25              | N           | MEMBER                | E    |
| SECURITY MEMBER NAME<br>SC: THE NAME OF A MEMBER IN THE      | SECMBRNAM<br>COMMAND'S SECU  | C,45<br>IRITY PRO | n<br>GRAM   | MEMBER                | E    |
| SECURITY MEMBER SSN<br>SC: A SPECIFIC MEMBER'S SOCIAL        | SECMBRSSN<br>SECURITY NUMBER | N,12<br>R FOR REC | Y<br>ORD AN | MEMBER<br>ID TRACKING |      |
| SECURITY MEMBER SUB-FUNCTION SC: THE SUB-FUNCTION THAT A MEM |                              |                   | N           | MEMBER                | E    |

Long Comment :

A MEMBER MAY BE ASSIGNED TO A SECURITY SUB-FUNCTION, SUCH AS PRP, EITHER AS A PART OF THAT SUB-FUNCTION (i.e., PRP MEMBER) OR AS A SUPERVISOR OF THAT SUB-FUNCTION. FOR EXAMPLE, THE OPERATIONS OFFICER MAY E ASSIGNED TO SUPERVISE THE VISITOR CONTROL SUB-FUNCTION OF THE SECURITY PROGR'M.

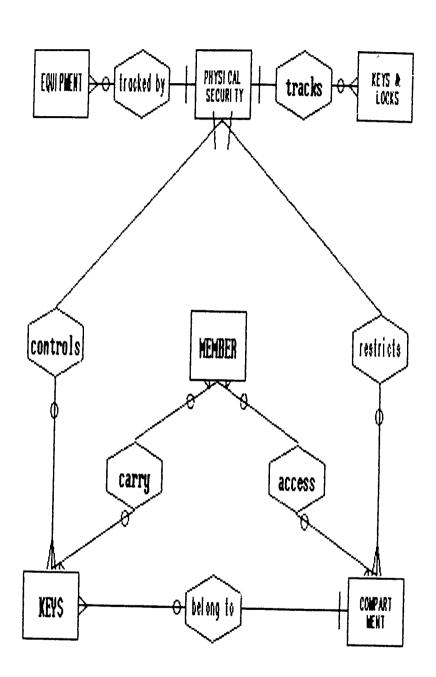
| SECURITY OFFICER NAME<br>SC: NAME AND RANK OF THE COMMAND     |                              |              | Y | SECURITY | E |
|---|------------------------------|--------------|---|----------|---|
| SECURITY OFFICER PHONE<br>SC: THE PHONE NUMBER OF THE COMM    | SECOFFPHON<br>AND SECURITY O | N,5<br>FFICE | N | SECURITY | E |
| SECURITY_OFFICE_LOCATION SC: LOCATION OF THE COMMAND SECURITY |                              | C,25         | N | SECURITY | E |
| SECURITY_SUBFUNCTION_NAME SC: Name of security subfunction    | SEC SUB NAM                  | C,30         | Y | SUBFUNCT | E |

SC: Name of security subfunction

# APPENDIX F

# PHYSICAL SECURITY ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the PHYSICAL SECURITY sub-function as discussed in Chapter  $_{\ \backslash}$  IV.



## STRUCTURE REPORT FOR PHYSICAL - VERSION 2.11

## COMPARTMENT =

COMPARTMENT NUMBER

- + COMPARTMENT ACCESS AUTHORITY
- + COMPARTMENT ACCESS LAST UPDATE + COMPARTMENT DATE ACCESS APPROVED
- + COMPARTMENT NAME

#### EQUIPMENT =

EQUIPMENT IDENTIFICATION NUMBER

+ EQUIPMENT LOCATION

KEY SERIAL NUMBER

- + KEY COPY NUMBER
- + KEY ISSUED TO NAME
- + KEY\_ISSUE\_DATE
- + KEY LOCKER NUMBER
- + KEY RETURN DATE

# KEYS & LOCKS =

KEY/LOCK\_SERIAL\_NUMBER

- + KEY/LOCK\_LOCATION
- + KEY/LOCK TYPE
- + KEY CUSTODIAN NAME

## MEMBER \*\*

PHYSICAL MEMBER NAME

- + PHYSICAL MEMBER DIVISION
- + PHYSICAL MEMBER WORKCENTER
- + PHYSICAL MEMBER WORKCENTER PHONE

#### PHYSICAL SECURITY =

PHYSICAL SUPERVISOR NAME

- + PHYSICAL\_SUPERVISOR\_DEPARTMENT + PHYSICAL\_SUPERVISOR\_LOCATION
- + PHYSICAL\_SUPERVISOR\_PHONE

SC: Serial number of key

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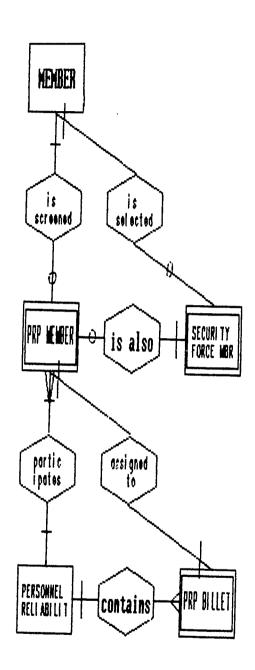
ATTRIBUTE REPORT FOR PHYSICAL - VERSION 2.11 Attribute Name Alias Format Key Object & Type COMPARTMENT ACCESS AUTHORITY COMPACCAUTH C,50 COMPARTM E N SC: NAME, RANK/RATE OF PERSON AUTHORIZING ACCESS TO A SPECIFIC COMPARTMENT COMPARTMENT ACCESS LAST UPDATE COMPUPDAT D COMPARTM E N SC: DATE WHEN THE COMPARTMENT ACCSS LIST WAS LAST UPDATED COMPARTMENT DATE ACCESS APPROVED COMPACCDAT D COMPARTM E SC: DATE A MEMBER WAS AUTHORIZED ACCESS TO A SPECIFIC COMPARTMENT COMPARTMENT NAME COMP NAME C, 25 COMPARTM E SC: Name of compartment being restricted C, 20 Y COMPARTMENT NUMBER COMP NUM COMPARTM E SC: Number of compartment being restricted EQUIPMENT IDENTIFICATION NUMBER EQUIP ID NU C,35 Y EQUIP SC: Identification number of the equipment item EQUIPMENT LOCATION EQUIP LOC C,30 N EQUIP SC: Location (compartment) of equipment item KEY/LOCK LOCATION C,20 KEY LOCK LO KEYS & L E SC: Location (compartment) of key or lock on the ship KEY/LOCK SERIAL NUMBER KEY LOCK SE C, 15 Y KEYS & L E SC: Serial number of key or lock which is being controlled KEY/LOCK TYPE KEY LOCK TY C. 4 KEYS & L E SC: Indicates if the item is a key or lock KEY COPY NUMBER KEYCOPYNUM N, 4 N KEYS SC: THE NUMBER OF THE COPY FOR A SPECIFIC SERIAL NUMBER (I.E., COPY #4) KEY CUSTODIAN NAME KEYCUSTNAM C,50 KEYS & L E N SC: THE NAME AND RANK/RATE OF THE CUSTODIAN OF A SPECIFIC KEY/LOCK KEY ISSUED TO NAME KEYISSNAM C,50 KEYS E N SC: THE NAME AND RANK OF THE MEMBER ISSUED A SPECIFIC KEY KEY ISSUE DATE KEYISSDAT KEYS E SC: DATE OF ISSUE OF A SPECIFIC KEY TO A MEMBER KEY LOCKER NUMBER KEYLKRNUM N N. 4 KEYS SC: WHEN NOT ISUED TO A MEMBER, THE LOCKER A SPECIFIC KEY IS STORED IN KEY RETURN DATE KEYRETDAT KEYS SC: DATE A SPECIFIC KEY WAS RETURNED KEY SERIAL NUMBER KEY SER NUM C,10 Y KEYS

PHYSICAL MEMBER DIVISION PHYSMBRDIV C,15 N MEMBER E SC: THE DIVISION TO WHICH A SPECIFIC MEMBE IS ASSIGNED PHYSICAL MEMBER NAME PHYSMBRNAM C, 45 MEMBER Y E SC: THE NAME OF A SPECIFIC MEMEBR IN THE PHYSICAL SECURITY PROGRAM PHYSICAL MEMBER WORKCENTER PHYMBRWKCTR C,15 N MEMBER E SC: THE WORKCENTER TO WHICH A SPECIFIC MEMBER IS ASSIGNED PHYSICAL MEMBER WORKCENTER PHONE PHYMBRPHON N,5 N MEMBER F. SC: THE MEMBER'S WORKCENTER PHONE NUMBER PHYSICAL SUPERVISOR DEPARTMENT PHYSUPVRDEP C,15 N PHYSICAL E SC: THE DEPARTMENT TO WHICH THE PHYSICAL SECURITY SUPRVISOR IS ASSIGNED PHYSICAL SUPERVISOR LOCATION PHYSUPVRLOC C, 25 N PHYSICAL E SC: THE LOCATION OF THE PHYSICAL SECURITY SUPERVISOR'S OFFICE PHYSICAL SUPERVISOR NAME PHYSUPVRNAM C, 45 Y PHYSICAL E SC: NAME OF THE MEMBER SUPERVISING THE PHYSICAL SECURITY PROGRAM PHYSICAL SUPERVISOR PHONE PHYSUPVRPHO N, 4 N PHYSICAL E SC: THE PHONE NUMBER OF THE PHYSICAL SECURITY SUPERVISOR'S OFFICE

# APPENDIX G

# PERSONNEL RELIABILITY PROGRAM ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the PERSONNEL RELIABILITY PROGRAM sub-function as discussed in Chapter IV.



### STRUCTURE REPORT FOR PRP - VERSION 2.11

#### MEMBER =

- PRP MEMBER SSN
- + PRP\_MEMBER\_DEPARTMENT + PRP\_MEMBER\_DIVISION
- + PRP MEMBER NAME

#### PERSONNEL RELIABILITY PROGRAM =

PRP CERTIFYING OFFICER AUTHORITY

- + PRP CHRTIFYING OFFICER NAME
- + PRP CERTIFYING OFFICER RANK
- + PRP CERTIFYING OFFICER TITLE
- + PRP CERTIFYING OFF DESIG DATE
- + PRP CONTROLLED BILLETS REQUIRED
- + PRP CRITICAL BILLETS REQUIRED

#### PRP BILLET =

- PRP\_BILLET\_NAME
- + PRP\_ASSIGNMENT\_DATE
- + PRP BILLET TYPE

#### PRP MEMBER =

- PRP ASSIGNMENT STATUS
  + PRP BADGE NUMBER
  + PRP CERTIFICATION DATE
- + PRP CERTIFYING AUTHORITY TITLE
- + PRP CERT AUTHORITY NAME
- + PRP CERT AUTHORITY RANK
- + PRP CERT AUTH ORGANIZATION
- + PRP CERT AUTH SIGNATURE IND
- + PRP EXCLUSION ACCESS CODE
- + PRP KEY ACCESS CODE
- + PRP MEDICAL SCREEN DATE
- + PRP MED SCREEN AUTHORITY NAME
- + PRP MED SCRN AUTHORITY RANK
- + PRP MED SCRN AUTHORITY TITLE
- + PRP MED SCRN AUTH ORGANIZATION
- + PRP\_MED\_SCRN\_AUTH\_SIGNATURE IND
- + PRP PERMANENT REMOVAL DATE
- + PRP\_PERMANENT\_REMOVAL\_REASON
- + PRP\_PERMANENT\_REMOVAL\_TIME

- + PRP REINSTATEMENT DATE
  + PRP REINSTATEMENT TIME
  + PRP SECURITY SCREEN AUTH NAME
  + PRP SECURITY SCREEN AUTH TITLE
  + PRP SECURITY SCREEN DATE
- + PRP\_SEC\_SCREEN\_AUTHORITY\_RANK
- + PRP\_SEC\_SCREEN\_AUTH\_ORGANIZATION
- + PRP SEC SCRN AUTH SIGNATURE IND
- + PRP TEMPORARY REMOVAL DATE
- + PRP TEMP REMOVAL REASON
- + PRP TEMP REMOVAL TIME
- + PRP URINE SCREEN DATE
- + PRP URINE SCRN AUTHORITY NAME

- + PRP URINE SCRN AUTH RANK
- + PRP URIN SCRN AUTH ORGANIZATION
- + PRP URIN SCRN AUTH SIGNATURE IND
- + PRP URIN SCRN AUTH TITLE

## SECURITY FORCE MBR =

- SECURITY FORCE BILLET NAME + SECURITY FORCE DUTY SECTION

- + SECURITY FORCE DUTY SECTION
  + SECURITY FORCE AUTHORITY NAME
  + SECURITY FORCE BILLET TYPE
  + SECURITY FORCE DATA UPDATE DATE
  + SECURITY FORCE DATA UPDATE NAME
  + SECURITY FORCE STATUS DATE
  + SECURITY FORCE STATUS IND
  + SECURITY FORCE WEAPON QUAL DATE
  + SECURITY FORCE WEAPON QUAL TYPE
  + SECURITY FORCE WEAPON QUAL TYPE
  + SECURITY FORCE WPN REQUAL DATE
  + SEC FORCE AUTH SIGNATURE DATE
  + SEC FORCE AUTH SIGNATURE IND
  + SEC FORCE NUMBER WEAPON QUALS

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ATTRIBUTE REPORT FOR PRP - VERSION 2.11

| Attribute Name  | Alias                        | Format            | Key         | Object &         | Туре |
|---|------------------------------|-------------------|-------------|------------------|------|
| PRP_ASSIGNMENT_DATE SC: Date billet was assigned to               | PRP ASSIGNM<br>member        | D                 | N           | PRP BILL         | W    |
| PRP_ASSIGNMENT_STATUS<br>SC: Assignment status is either          | PRP ASSIGN<br>final or inte  | C,8<br>rim        | Y           | PRP MEMB         | W    |
| PRP_BADGE_NUMBER<br>SC: Serial number of badge assig              | PRP BADGE<br>ned to PRP men  | N,10<br>mber      | Y           | PRP MEMB         | W    |
| PRP_BILLET_NAME<br>SC: Name of PRP billet                         | PRP BILLET                   | C,25              | ¥           | PRP BILL         | W    |
| PRP_BILLET_TYPE SC: Type of billet: either Criti                  |                              |                   | N           | PRP BILL         | W    |
| PRP_CERTIFICATION_DATE SC: Date member was certified as           | PRP CERT DA<br>a PRP member  | D                 | N           | PRP MEMB         | W    |
| PRP_CERTIFYING AUTHORITY_TITLE SC: Title of the PRP certifying    |                              | C,15              | N           | PRP MEMB         | W    |
| PRP_CERTIFYING_OFFICER_AUTHORITY SC: Name of person with authorit | PRP CERT OF y to designat    | C,15<br>e the cer | N<br>tifyin | PRP<br>g officer | E    |
| PRP_CERTIFYING_OFFICER_NAME<br>SC: Name of officer in charge of   | PRP CERT OF certifying m     | C,33<br>embers of | N<br>the P  | PRP              | E    |
| PRP_CERTIFYING_OFFICER_RANK<br>SC: Rank of certifying officer f   | PRP CERT OF<br>or the PRP    | C,10              | N           | PRP              | E    |
| PRP_CERTIFYING_OFFICER_TITLE<br>SC: Title of certifying officer   |                              | C,20              | N           | PRP              | E    |
| PRP_CERTIFYING_OFF_DESIG_DATE<br>SC: Date certifying officer for  | PRP CERT OF<br>the PRP was d | D<br>esignated    | N           | PRP              | E    |
| PRP_CERT_AUTHORITY_NAME SC: Name of the PRP certifying a          |                              | C,25              | N           | PRP MEME         | S W  |
| PRP_CERT_AUTHORITY_RANK SC: Rank of the PRP certifying a          | PRP CERT AU                  | C,10              | N           | PRP MEME         | W W  |
| PRP_CERT_AUTH_ORGANIZATION SC: Organization of the PRP cert       | PRP CERT AU                  | C,25              | N           | PRP MEME         | 3 W  |
| PRP_CERT_AUTH_SIGNATURE_IND<br>SC: Signature of the PRP certify   |                              | L<br>obtained     | N<br>l      | PRP MEME         | 3 W  |
| PRP_CONTROLLED_BILLETS_REQUIRED SC: Number of Controlled PRP bil  | PRP CONT BI                  | N,3<br>l for this | N<br>comma  | PRP              | E    |

Author: Dan Montgomery

| PRP_CRITICAL_BILLETS_REQUIRED SC: Number of critical PRP biller     | PRP CRIT BI                     | N,3<br>r this cor | N<br>mmand  | PRP      | E |
|---|---------------------------------|-------------------|-------------|----------|---|
| PRP_EXCLUSION_ACCESS_CODE<br>SC: Exclusion area access (Unrest      | PRP EXCLUSI<br>tricted/restric  | C,15<br>cted/visi | N<br>tor)   | PRP MEMB | W |
| PRP_KEY_ACCESS_CODE<br>SC: Authorized access to primary             | PRP KEY ACC or secondary l      | C,10<br>keys to e | N<br>kclus: | PRP MEMB | W |
| PRP MEDICAL SCREEN DATE<br>SC: Date medical screen was compo        | PRP MED SCR<br>leted            | D                 | N           | PRP MEMB | W |
| PRP MED SCREEN_AUTHORITY_NAME SC: Name of the medical screen as     |                                 | C,25              | N           | PRP MEMB | W |
| PRP_MED_SCRN_AUTHORITY_RANK<br>SC: Rank of the medical screening    | PRP MED SCR<br>g authority      | C,15              | N           | PRP MEMB | W |
| PRP_MED_SCRN_AUTHORITY_TITLE SC: Title of the medical screening     |                                 | C,15              | N           | PRP MEMB | W |
| PRP MED SCRN AUTH ORGANIZATION SC: Organization of the medical :    | PRP MED SCR<br>screening author | C,25<br>ority     | N           | PRP MEMB | M |
| PRP_MED_SCRN_AUTH_SIGNATURE_IND<br>SC: Signature of the medical scr | PRP MED SCR<br>eening authoria  | L<br>ty           | N           | PRP MEMB | W |
| PRP MEMBER DEPARTMENT<br>SC: THE DEPARTMENT TO WHICH A SP           | PRPMBRDEPT<br>ECIFIC MEMBER     | C,15<br>IS ASSIGN | n<br>Ed     | MEMBER   | E |
| PRP MEMBER DIVISION<br>SC: DIVISION TO WHICH A SPECIFIC             | PRPMBRDIV<br>MEMBER IS ASS      | C,15<br>IGNED     | N           | MEMBER   | E |
| PRP_MEMBER_NAME<br>SC: THE MEMBER'S FIRST, LAST NAME                | PRPMBRNAM<br>E AND MIDDLE I     | C,45<br>NITIAL    | N           | MEMBER   | E |
| PRP MEMBER SSN<br>SC: MEMBER'S SOCIAL SECURITY NUM                  | PRPMBRSSN<br>BER                | N,12              | Y           | MEMBER   | E |
| PRP_PERMANENT_REMOVAL_DATE SC: Date of permanent removal from       |                                 | D                 | N           | PRP MEMB | M |
| PRP_PERMANENT_REMOVAL_REASON SC: Reason fro permanent removal       | PRP PERM RM<br>from the PRP     | C,50              | N           | PRP MEMB | W |
| PRP_PERMANENT_REMOVAL_TIME SC: Time of permanent removal from       |                                 | N, 4              | N           | PRP MEMB | W |
| PRP_REINSTATEMENT_DATE SC: Date of reinstatement into to            | PRP REINSTA<br>he PRP           | D                 | N           | PRP MEMB | W |
| PRP_REINSTATEMENT_TIME SC: Time of reinstatement into to            | PRP REINSTA<br>he PRP           | N, 4              | N           | PRP MEMB | W |
| PRP_SECURITY_SCREEN_AUTH_NAME<br>SC: Name of person validating se   | PRPSEC SCRN<br>curity screen    | C,25              | N           | PRP MEMB | W |

| PRP_SECURITY_SCREEN_AUTH_TITLE PRPSEC SCRN<br>SC: Title of security screen authority             | C,25          | N | PRP M | EMB | W |
|--|---------------|---|-------|-----|---|
| PRP_SECURITY_SCREEN_DATE PRPSEC SCRE SC: Date of security screening                              | D             | N | PRP M | EMB | W |
| PRP_SEC_SCREEN_AUTHORITY_RANK PRPSEC SCRN<br>SC: Rank of security screen authority               | C,10          | N | PRP M | EMB | W |
| PRP_SEC_SCREEN_AUTH_ORGANIZATION PRPSEC SCRN SC: Organization of the security screening auth     |               | N | PRP M | EMB | W |
| PRP_SEC_SCRN_AUTH_SIGNATURE_IND PRPSEC SCRN SC: Indicates signature of screening authority       | L<br>obtained |   | PRP M | EMB | W |
| PRP_TEMPORARY_REMOVAL_DATE PRP TEMP RM SC: Date of temporary removal from the PRP                | D             | N | PRP M | EMB | W |
| PRP_TEMP_REMOVAL_REASON PRP TEMP RM SC: Reason for temporary removal from the PRP                | C,50          | N | PRP M | EMB | W |
| PRP_TEMP_REMOVAL_TIME PRP TEMP RM SC: Time of temporary removal from the PRP                     | N, 4          | N | PRP M | EMB | W |
| PRP_URINE_SCREEN_DATE PRP URINE S<br>SC: Date of the urinalysis screen                           | D             | N | PRP M | EMB | W |
| PRP_URINE_SCRN_AUTHORITY_NAME PRP_URIN_SC<br>SC: Name of the urinalysis screening authority      | C,25          | N | PRP M | EMB | W |
| PRP_URINE_SCRN_AUTH_RANK PRP_URIN_SC<br>SC: Rank of the urinalysis screening authority           | C,10          | N | PRP M | EMB | W |
| PRP_URIN_SCRN_AUTH_ORGANIZATION PRP_URIN_SC<br>SC: Organization of the urinalysis screening au   |               | N | PRP M | EMB | W |
| PRP_URIN_SCRN_AUTH_SIGNATURE_IND PRP_URIN_SC<br>SC: Signature of the urinalysis screening author |               |   | PRP M | EMB | W |
| PRP_URIN_SCRN_AUTH_TITLE PRP_URIN_SC<br>SC: Title of the urinalysis screening authority          | C,15<br>/     | N | PRP M | EMB | W |
| SECURITY_FORCE_AUTHORITY_NAME SECFOR AUTH SC: Name of person who has authority over the s        |               |   |       | RMB | W |
| SECURITY FORCE AUTHORITY RANK SECFOR AUTH SC: Rank of the security force authority               | C,10          | N | SECFO | RMB | W |
| SECURITY_FORCE_BILLET_NAME SECFOR BILL SC: Name of Security Force billet                         | C,25          | Y | SECFO | RMB | W |
| SECURITY_FORCE_BILLET_TYPE SECFOR BILL SC: Identifies type of Security Force billet              | C,25          | N | SECFO | RMB | W |
| SECURITY_FORCE_DATA_UPDATE_DATE SECFOR DATA  | D             | N | SECFO | RMB | W |

SC: Date of the last update to Security Force data

SECURITY FORCE DATA UPDATE NAME SECFOR DATA C,25 N SECFORMB W SC: Name of the person who last updated security force data

SECURITY FORCE DUTY SECTION SECFOR DUTY N,1 Y SECFORMB W SC: Duty section to which security force member is assigned

SECURITY\_FORCE\_STATUS\_DATE SECFOR STAT D N SECFORMB W SC: Date of security force status report

SECURITY\_FORCE\_STATUS\_IND SECFOR STAT C,1 N SECFORMB W SC: Status of security force member quals (F-final U-under instruction)

SECURITY FORCE WEAPON QUAL DATE SECFOR WPN D N SECFORMB W SC: Date of security force weapon qualification

SECURITY FORCE WEAPON QUAL TYPE SEC FOR WEA C,25 N SECFORMB W SC: Type of weapon member qualified for (weapon attributes repeating group)

SECURITY FORCE WPN REQUAL DATE SECFOR WPN D N SECFORMB W SC: Projected requalification date for weapon

SEC\_FORCE\_AUTH\_SIGNATURE\_DATE SECFOR AUTH D N SECFORMB W SC: Date of the authority signature

SEC\_FORCE\_AUTH\_SIGNATURE\_IND SECFOR AUTH L N SECFORMB W SC: Signature of the security force authority obtained

SEC FORCE NUMBER WEAPON QUALS SECFOR WPN N,2 N SECFORMB W SC: Number of weapons that security force member is qualified on

RULE REPORT

Author: Dan Montgomery

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RULE REPORT FOR PRP - VERSION 2.11

Rules for SECURITY FORCE MBR

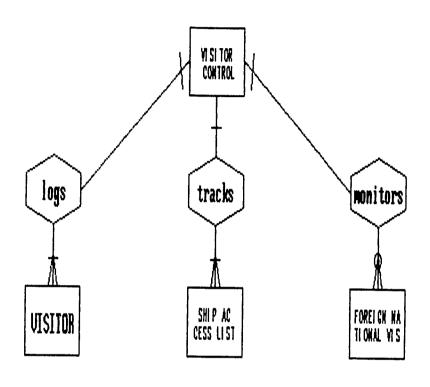
IF SEC\_FORCE\_NUMBER\_WEAPON\_QUALS

THEN REPEAT SECFORCE WPN ATTRIBUTES

# APPENDIX H

# VISITOR CONTROL ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the VISITOR CONTROL sub-function as discussed in Chapter IV.



#### STRUCTURE REPORT FOR VISITOR - VERSION 2.11

#### FOREIGN NATIONAL VISITOR =

- FOREIGN VISITOR ARRIVAL DATE

  + FOREIGN VISITOR NAME

  + FOREIGN VISITOR CITIZENSHIP

  + FOREIGN VISITOR COUNTRY

  + FOREIGN VISITOR DEPARTURE DATE

  + FOREIGN VISITOR DUAL CITIZENSHIP

  + FOREIGN VISITOR HOST NAME

  + FOREIGN VISITOR HOST PHONE

  + FOREIGN VISITOR NAME

- + FOREIGN VISITOR INFO CLEARANCE

- + FOREIGN VISITOR POSITION + FOREIGN VISITOR UPDATED BY + FOREIGN VISITOR VISIT PURPOSE
- + INFORMATION DISCLOSURE TYPE
- + INFO CLEARANCE AUTHORITY NAME

#### SHIP ACCESS LIST =

#### INDIVIDUAL NAME

- + INDIVIDUAL SOCIAL SECURITY NUM
- + INDIVIDUAL CLEARANCE
- + INDIVIDUAL ESCORT REQUIRED
- + INDIVIDUAL\_LAST\_UPDATED BY
- + INDIVIDUAL LAST UPDATED DATE
- + INDIVIDUAL ORGANIZATION
- + INDIVIDUAL ORGANIZATION PHONE

#### VISITOR =

- VISITOR ARRIVAL DATE
- + VISITOR ARRIVAL TIME
- + VISITOR BADGE NUMBER
- + VISITOR DEPARTURE TIME
- + VISITOR DESTINATION
- + VISITOR ESCORT NAME
- + VISITOR\_NAME
- + VISITOR ORGANIZATION

## VISITOR CONTROL =

VISITOR\_CONTROL\_SUPERVISOR\_NAME

- + VISITOR\_CONTROL\_SUPERVISOR\_LOCAT
- + VISITOR\_CONTROL\_SUPERVISOR\_PHONE

# ATTRIBUTE REPORT FOR VISITOR - VERSION 2.11

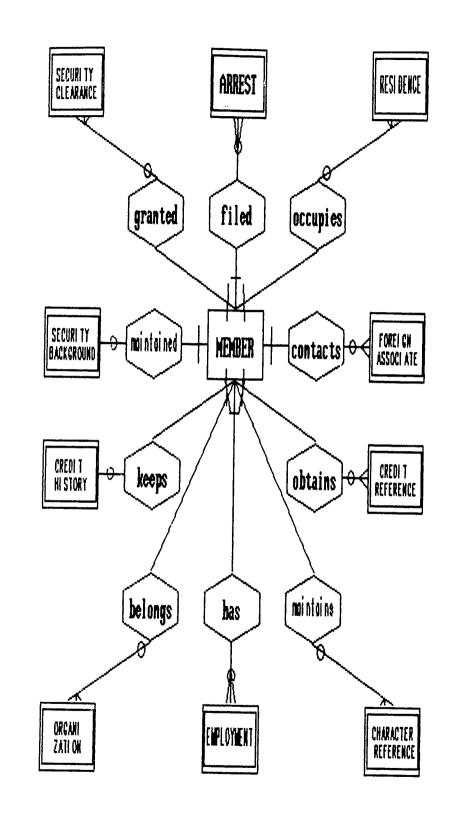
| Attribute Name  | Alias                        | Format            | Key          | Object &         | Туре |
|---|------------------------------|-------------------|--------------|------------------|------|
| FOREIGN VISITOR ARRIVAL DATE SC: Estimated date of arrival of     | FOREIGN VIS                  | D<br>onal visi    | Y<br>tor     | FOREIGN          | E    |
| FOREIGN_VISITOR_CITIZENSHIP<br>SC: Country where foreign nation   | FOREIGN VIS<br>al visitor is | C,30<br>a citize  | n<br>n       | FOREIGN          | E    |
| FOREIGN_VISITOR_COUNTRY SC: Country where foreign nation          | FOREIGN VIS<br>al visitor re | C,30<br>sides     | N            | FOREIGN          | E    |
| FOREIGN_VISITOR_DEPARTURE_DATE<br>SC: Estimated departure date of |                              |                   |              | FOREIGN          | E    |
| FOREIGN VISITOR DUAL CITIZENSHIP SC: Indicates if foreign nationa |                              |                   |              |                  | E    |
| FOREIGN_VISITOR_HOST_NAME<br>SC: Name of host of foreign nati     | FOREIGN VIS                  | C,30              | N            | FOREIGN          | E    |
| FOREIGN_VISITOR_HOST_PHONE<br>SC: Phone number of host of fore    | FOREIGN VIS                  | C,8<br>visitor    | N            | FOREIGN          | E    |
| FOREIGN_VISITOR_INFO_CLEARANCE<br>SC: Indicates if information is |                              |                   |              |                  | E    |
| FOREIGN VISITOR NAME<br>SC: Full name of foreign nations          | FOREIGN VIS                  | C,45              | Y            | FOREIGN          | E    |
| FOREIGN VISITOR POSITION SC: Position description of fore         | FOREIGN VIS                  | C,30<br>visitor   | N            | FOREIGN          | E    |
| FOREIGN_VISITOR_UPDATED_BY<br>SC: ID code of person updating f    | FOREIGN VIS                  | C,3<br>al visito  | N<br>or info | FOREIGN ormation | E    |
| FOREIGN_VISITOR_VISIT_PURPOSE<br>SC: Purpose of foreign national  | FOREIGN VIS<br>visitor's vis | C,30<br>it        | N            | FOREIGN          | E    |
| INDIVIDUAL_CLEARANCE SC: Clearance and access of indi             | INDIV CLEAR                  | c,13              | N            | SHIP ACC         | E    |
| INDIVIDUAL_ESCORT_REQUIRED SC: Indicates if individual is r       | INDIV ESCOR<br>equired to ha | L<br>ve an esc    | N<br>ort wl  | SHIP ACC         | E    |
| INDIVIDUAL LAST UPDATED BY SC: Identification code of person      | INDIV LAST                   | C,3<br>this red   | N<br>cord    | SHIP ACC         | E    |
| INDIVIDUAL LAST UPDATED DATE<br>SC: Date this record was last up  |                              | D                 | N            | SHIP ACC         | E    |
| INDIVIDUAL NAME SC: Name of individual allowed a                  | INDIVIDUAL access to the     | C,45<br>ship in a | Y<br>additio | SHIP ACC         | E    |

| INDIVIDUAL_ORGANIZATION INDIV ORG C,25 N SHIP ACC E SC: Organization individual belongs to   | 3        |
|--|----------|
| INDIVIDUAL ORGANIZATION PHONE INDIV ORG P C,12 N SHIP ACC E SC: Phone number of individual's organization                          | ;        |
| INDIVIDUAL SOCIAL SECURITY NUM SSN C,11 Y SHIP ACC E SC: Social security number or identification number of individual             | ;        |
| INFORMATION DISCLOSURE TYPE INFO DISCLO C,20 N FOREIGN E SC: Type of info to be disclosed to foreign visitor (class, technical, et | ;<br>:c) |
| INFO CLEARANCE AUTHORITY NAME INFO CLEAR C,30 N FOREIGN E SC: Name of person who cleared the information for disclosure to foreign | ;<br>ier |
| VISITOR_ARRIVAL_DATE VIS ARR DAT D Y VIS E SC: Date visitor arrived on board the ship  | :        |
| VISITOR ARRIVAL TIME VIS ARR TIM T Y VIS E SC: Time visitor arrived on board the ship  | ;        |
| VISITOR_BADGE_NUMBER VIS BADGE C,4 N VIS E<br>SC: Badge number of visitor badge given to visitor                                   | ;        |
| VISITOR CONTROL SUPERVISOR LOCAT VISSUPVRLOC C,25 N VISITOR E SC: LOCATION OF THE VISITOR CONTROL SUPERVISOR'S OFFICE              | :        |
| VISITOR CONTROL SUPERVISOR NAME VISSUPVRNAM C,50 Y VISITOR E<br>SC: THE NAME AND RANK OF THE VISITOR CONTROL PROGRAM SUPERVISOR    | 3        |
| VISITOR CONTROL SUPERVISOR PHONE VISSUPVRPHO N,5 N VISITOR ESC: THE PHONE NUMBER OF THE VISITOR CONTROL SUPERVISOR'S OFFICE        | 3        |
| VISITOR_DEPARTURE_TIME VIS DEP TIM T N VIS ESC: Time visitor departed the ship   | ;        |
| VISITOR_DESTINATION VIS DEST C,20 N VIS E SC: Destination of visitor on board the ship   | ;        |
| VISITOR_ESCORT_NAME VIS ESCORT C,25 N VIS ESC: Name of visitor's escort (if required)  | :        |
| VISITOR NAME C,45 N VIS ESC: Full name of the visitor  | ;        |
| VISITOR ORGANIZATION VIS ORG C,25 N VIS E SC: Organization the visitor belongs to (if any)   | ;        |

# APPENDIX I

# CLEARANCE/ACCESS ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the CLEARANCE/ACCESS sub-function as discussed in Chapter IV.



#### STRUCTURE REPORT FOR CLEARANC - VERSION 2.11

#### ARREST =

- ARREST DATE
- + ARREST\_OFFENSE
- + ARRESTING AGENCY
- + ARRESTING AGENCY CITY
- + ARRESTING AGENCY STATE
- + ARREST COURT CITY
- + ARREST COURT NAME
- + ARREST COURT STATE
- + ARREST DISPOSITION

## CHARACTER REFERENCE =

- REFERENCE\_NAME
- + REFERENCE ASSOCIATION
- + REFERENCE ASSOCIATION FROM DATE
- + REFERENCE\_ASSOCIATION\_TO\_DATE
- + REFERENCE\_CITY + REFERENCE\_HOME\_PHONE

- + REFERENCE OFFICE PHONE + REFERENCE STATE + REFERENCE STREET ADDRESS

#### CREDIT HISTORY =

- DEBT DELINQUINCY
- + FILED FOR BANKRUPTCY
- + GARNISHED WAGES
- + REPOSSESSIONS
- + TAX PURPOSE LIEN
- + UNPAID\_JUDGEMENTS

#### CREDIT REFERENCE =

- CREDIT REFERENCE ACCOUNT NUMBER
- + CREDIT REFERENCE NAME
- + CREDIT REFERENCE CITY
- + CREDIT REFERENCE STATE
- + CREDIT FEFERENCE STREET ADDRESS

## EMPLOYMENT =

- EMULOYED\_FROM\_DATE
- + EMPLOYED\_TO\_DATE
- + CIVILIAN\_LICENSE
- + EMPLOYER ADDRESS
- + EMPLOYER IMMEDIATE SUPERVISOR
- + EMPLOYER\_NAME + EMPLOYER\_PHONE
- + EMPLOYMENT POSITION

#### FOREIGN ASSOCIATE =

- FOREIGN\_ASSOCIATE\_NAME
- + FOREIGN ASSOCIATE ADDRESS
- + FOREIGN ASSOCIATE BIRTH DATE
- + FOREIGN ASSOCIATE BIRTH PLACE
- + FOREIGN ASSOCIATE CITIZENSHIP

+ FOREIGN ASSOCIATE RELATIONSHIP

#### MEMBER =

- CLEARANCE MEMBER SSN
- + CLEARANCE\_MEMBER\_DEPARTMENT
- + CLEARANCE MEMBER NAME

#### ORGANIZATION =

- ORGANIZATION FROM DATE
- + ORGANIZATION NAME
- + ORGANIZATION CITY
- + ORGANIZATION STATE
- + ORGANIZATION STREET ADDRESS
- + ORGANIZATION TO DATE
- + ORGANIZATION TYPE

## RESIDENCE =

- RESIDENCE FROM DATE
- + RESIDENCE TO DATE
- + NUMBER OF ROOMMATES
- + RESIDENCE CITY
- + RESIDENCE\_COUNTRY
- + RESIDENCE STATE
- + RESIDENCE STREET ADDRESS
- + ROOMMATE CURRENT CITY
- + ROOMMATE CURRENT PHONE
- + ROOMMATE CURRENT STATE
- + ROOMMATE CURRENT STREET ADDRESS
- + ROOMMATE NAME

## SECURITY BACKGROUND =

ALCOHOL PROBLEMS

- + COMMUNIST ORGANIZATION MEMBER
- + DATE\_OTHER\_NAME\_USED
- + FOREIGN EMPLOYMENT
- + FOREIGN FINANCIAL INTERESTS
- + FOREIGN\_GOVERNMENT\_CONTACT
- + FOREIGN UNOFFICIAL TRAVEL
  + FOREIGN UNOFFICIAL TRAVEL
  + ILLEGAL SUBSTANCE PURCHASE/PROD
  + ILLEGAL SUBSTANCE USE
  + MENTAL HEALTH TREATMENT
  + MENTAL PROBLEMS
  + OTHER NAMES USED

- + PRESCRIPTION DRUG MISUSE
- + SECURITY BACKGROUND REMARKS

#### SECURITY CLEARANCE =

CLEARANCE DATE GRANTED

- + ACCESS AUTHORITY
- + ACCESS COMMAND
- + ACCESS FROM DATE
- + ACCESS LEVEL
- + ACCESS LEVEL DATE
- + ACCESS REMARKS
- + ACCESS TO DATE
- + CLEARANCE ADMINISTRATIVE COMMENT

- + CLEARANCE\_AUTHORIZING\_COMMAND
- + CLEARANCE\_BASIS
- + CLEARANCE\_INVESTIGATION\_AGENCY

- + CLEARANCE INVESTIGATION DATE
  + CLEARANCE INVESTIGATION TYPE
  + CLEARANCE INVEST CASE CONTROL NO
  + CLEARANCE LAST UPDATED BY
- + CLEARANCE\_LAST\_UPDATED\_DATE
- + CLEARANCE\_LEVEL
- + CLEARANCE\_REMARKS

# ATTRIBUTE REPORT FOR CLEARANC - VERSION 2.11

| Attribute Name   | Alias                     | Format            | Key         | Object &               | Туре    |
|--|---------------------------|-------------------|-------------|------------------------|---------|
| ACCESS AUTHORITY SC: Indicates authority for gran      | ACC AUTH                  | C,20              | N           | SEC CLR                | W       |
| ACCESS_COMMAND<br>SC: Indicates the command granti     | ACC COMMAND ng the member | C,20<br>this acc  | N<br>ess le | SEC CLR                | W       |
| ACCESS_FROM_DATE<br>SC: Date this access level is ef   | ACCESS FROM fective       | D                 | N           | SEC CLR                | W       |
| ACCESS_LEVEL<br>SC: Level member is cleared for        | ACCESS LEVE access (e.g.  | C,15<br>confident | N<br>ial, s | SEC CLR<br>secret, etc | W<br>:) |
| ACCESS_LEVEL_DATE SC: Date member was granted this     | ACCESS DATE access level  | D                 | N           | SEC CLR                | W       |
| ACCESS_REMARKS<br>SC: Administrative remarks about     | ACC RMKS<br>this access   | C,30<br>level     | N           | SEC CLR                | W       |
| ACCESS_TO_DATE SC: Date this access level expir        | ACCESS TO D               | D                 | N           | SEC CLR                | W       |
| ALCOHOL PROBLEMS<br>SC: Indicates if member has ever   |                           |                   |             |                        | W       |
| ARRESTING AGENCY SC: Law enforcement arresting ag      | ARR AGENCY                | C,25              | N           | ARREST                 | W       |
| ARRESTING AGENCY CITY SC: City of law enforcement agen | ARR AGENCY                | C,25              | N           | ARREST                 | W       |
| ARRESTING AGENCY STATE SC: State code of arresting law | ARR AGENCY enforcement a  | C,2<br>gency      | N           | ARREST                 | W       |
| ARREST_COURT_CITY SC: City of Jourt residing over      | ARR COURT C               | C,25              | N           | ARREST                 | W       |
| ARREST_COURT_NAME<br>SC: Name of court residing over   | ARR COURT N arrest        | C,40              | N           | ARREST                 | W       |
| ARREST_COURT_STATE SC: State code of court residing    | ARR COURT S over arrest   | C,2               | N           | ARREST                 | W       |
| ARREST_DATE SC: Date of member's arrest                | ARREST DATE               | D                 | Y           | ARREST                 | W       |
| ARREST_DISPOSITION SC: Disposition of charges from     | ARR DISP arrest           | C,40              | N           | ARREST                 | W       |
| ARREST_OFFENSE<br>SC: Nature of arrest offense         | ARREST OFFE               | C,25              | Y           | ARREST                 | W       |

ATTRIBUTE REPORT
Author: Dan Montgomery

| CREDIT_REFERENCE_NAME SC: Name of credIt reference                | CREDIT REF                    | C,25         | Y | CREDIT R | W |
|---|-------------------------------|--------------|---|----------|---|
| CREDIT_REFERENCE_STATE SC: State code where credit refe           | CR REF STAT<br>rence is locat | C,2<br>ed    | N | CREDIT R | W |
| CREDIT REFERENCE STREET ADDRESS SC: Street address of credit ref  |                               | C,25         | N | CREDIT R | W |
| DATE_OTHER_NAME_USED<br>SC: Date other name was used              | DATE OTHER                    | D            | N | SEC BACK | W |
| DEBT_DELINQUINCY<br>SC: Indicates if member has any               |                               |              | N | CREDIT H | W |
| EMPLOYED FROM DATE<br>SC: Date member started this emp            | EMPLOYED FR loyment           | ם            | Y | EMPLOYME | W |
| EMPLOYED_TO_DATE SC: Date member left this employ                 | EMPL TO DAT                   | D            | Y | EMPLOYME | W |
| EMPLOYER_ADDRESS<br>SC: Address of employer                       | EMPL ADDRES                   | C,45         | N | EMPLOYME | W |
| EMPLOYER IMMEDIATE SUPERVISOR SC: Name of immediate supervisor    |                               |              | N | EMPLOYME | W |
| EMPLOYER_NAME<br>SC: Name of employer                             | EMPL NAME                     | C,25         | N | EMPLOYME | W |
| EMPLOYER_PHONE<br>SC: Phone number of employer                    | EMPL PHONE                    | C,12         | r | EMPLOYME | W |
| EMPLOYMENT_POSITION<br>SC: Position member filled at em           | EMPLOYMENT  ployment place    | C,30         | N | EMPLOYME | W |
| FILED_FOR_BANKRUPTCY<br>SC: Indicates if member has ever          | BANKRUPTCY filed for ban      | L<br>kruptcy | N | CREDIT H | W |
| FOREIGN_ASSOCIATE_ADDRESS<br>SC: Current address of foreign a     |                               |              |   |          | W |
| FOREIGN_ASSOCIATE_BIRTH_DATE<br>SC: Foreign associate's birth da  | FOR ASSOC B                   | D            | N | FOREIGN  | W |
| FOREIGN_ASSOCIATE_BIRTH_PLACE<br>SC: Birth place of foreign assoc | FOR ASSOC B                   | C,25         | N | FOREIGN  | W |
| FOREIGN_ASSOCIATE_CITIZENSHIP<br>SC: Current citizenship of forei |                               | C,25         | N | FOREIGN  | W |
| FOREIGN ASSOCIATE NAME<br>SC: Full name of foreign associa        | FOR ASSOC N                   | C,25         | Y | FOREIGN  | W |
| FOREIGN_ASSOCIATE_RELATIONSHIP                                    | FOREIGN ASS                   | C,20         | N | FOREIGN  | W |

| SC: Relationship of foreign country associate to memb |
|---|
|---|

| FOREIGN EMPLOYMENT FOREIGN EMP L<br>SC: Indicates if member has been or is employed by             | N<br>by a foreign  | SEC BACK country       | W      |
|--|--------------------|------------------------|--------|
| FOREIGN FINANCIAL INTERESTS FOREIGN FIN L<br>SC: Indicates if member has any foreign financial     | N<br>l interests   | SEC BACK               | W      |
| FOREIGN GOVERNMENT CONTACT FOREIGN GOV L<br>SC: Indicates if member has any foreign government     | N<br>nt contacts   | SEC BACK               | W      |
| FOREIGN UNOFFICIAL TRAVEL FOREIGN UNO L<br>SC: Indicates if member has traveled to any foreign     | N<br>ign countries | SEC BACK unofficia     | W      |
| GARNISHED_WAGES GARNISHED W L<br>SC: Indicates if member has ever had his wages ga                 | N<br>arnished for  | CREDIT H<br>any reasor | r<br>M |
| ILLEGAL SUBSTANCE PURCHASE/PROD ILLEGAL SUB L<br>SC: Indicates if member has purchased or produced | N<br>d, etc. illeg | SEC BACK<br>al substar | W      |
| ILLEGAL SUBSTANCE_USE ILLEGAL SUB L<br>SC: Indicates if member has ever used legal subst           | N<br>tances        | SEC BACK               | W      |
| MENTAL HEALTH TREATMENT MENTAL HEAL L<br>SC: Indicates if the member has ever been treated         |                    |                        | W      |
| MENTAL PROBLEMS  SC: Indicates if member has ever had problems re-                                 | N<br>lated to ment | SEC BACK<br>al health  | W      |
| NUMBER OF ROOMMATES NUM OF ROOM C. SC: Indicates number of roommates at residence                  | ,2 N               | RESIDENC               | W      |
| ORGANIZATION_CITY ORG CITY C, SC: City of Organization to which member belongs                     | ,25 N              | ORGANIZA               | W      |
| ORGANIZATION_FROM_DATE ORG FROM DA D SC: Date member joined the organization                       | ¥                  | ORGANIZA               | W      |
| ORGANIZATION_NAME ORG NAME C, SC: Name of organization to which member belongs                     | ,30 Y              | ORGANIZA               | W      |
| ORGANIZATION STATE ORG STATE C. SC: State code of organization to which member be                  | ,2 N<br>elongs     | ORGANIZA               | W      |
| ORGANIZATION_STREET_ADDRESS ORG STREET C. SC: Street address of organization to which members.     |                    | ORGANIZA               | W      |
| ORGANIZATION_TO_DATE ORG TO DATE D SC: Date member left the organization                           | N                  | ORGANIZA               | W      |
| ORGANIZATION_TYPE ORG TYPE C SC: Type of organization to which the member belo                     |                    | ORGANIZA               | W      |
| OTHER_NAMES_USED OTHER NAME C. SC: Other name previously used by member                            | ,25 N              | SEC BACK               | W      |
|  |                    |                        |        |

# ATTRIBUTE REPORT Author: Dan Montgomery

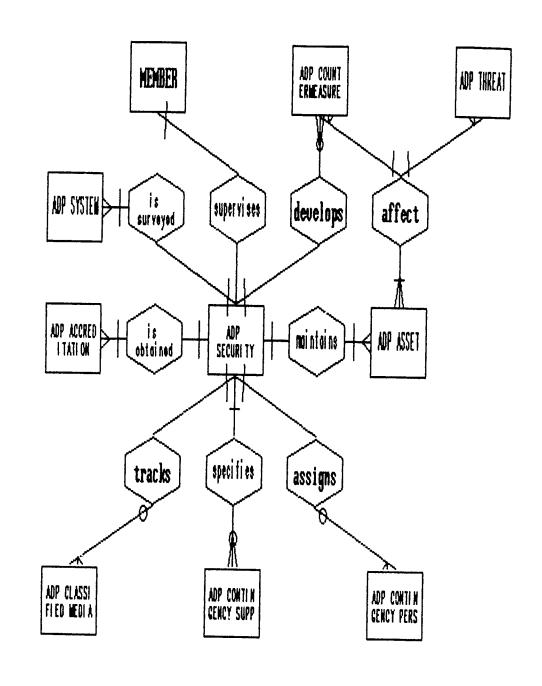
PRESCRIPTION DRUG MISUSE PRESCRIP DR L N SEC BACK W SC: Indicates if member has ever misused prescription drugs REFERENCE ASSOCIATION REF ASSOC C,25 N CHARACTE W SC: Association member had with character reference (e.g. best friend) REFERENCE ASSOCIATION FROM DATE REF ASSOC F D CHARACTE W SC: Beginning date member knew the character reference REFERENCE ASSOCIATION TO DATE REF ASSOC T D N CHARACTE W SC: Date member lost contact with the character reference REFERENCE CITY REF CITY C,25 N CHARACTE W SC: City In which character reference currently resides REFERENCE HOME PHONE REF HOME PH C,12 N CHARACTE W SC: Current home phone number of character reference REFERENCE NAME REF NAME C,45 Y CHARACTE W SC: Full name of character reference REFERENCE OFFICE PHONE REF OFF PHO C,12 CHARACTE W N SC: Current office phone number of character reference (if known) REFERENCE STATE REF STATE C.2 CHARACTE W SC: State code in which character currently resides REFERENCE STREET ADDRESS REF STREET C,25 CHARACTE W N SC: Current street address of character reference REPOSSESSIONS REPOSSESSIO L CREDIT H W SC: Indicates if member has ever had anything repossessed RESIDENCE CITY RES CITY C,25 N RESIDENC W SC: Residence city RESIDENCE COUNTRY RES COUNTRY C, 20 N RESIDENC W SC: Country of residence RESIDENCE FROM DATE RES FROM DA D Y RESIDENC W SC: Date member started residing in residence C, 2 RESIDENCE STATE RES STATE N RESIDENC W SC: State code of residence RESIDENCE STREET ADDRESS RES STREET C, 25 N RESIDENC W SC: Street address of residence Y RESIDENCE TO DATE RES TO DATE D RESIDENC W SC: Date member ended residence at this place ROOMMATE CURRENT CITY ROOMMATE CI C,25 N RESIDENC W SC: Roommate's current city ROOMMATE CURRENT PHONE ROOMMATE PH C,12 N RESIDENC W SC: Carrent phone number of roommate

| ROOMMATE CURRENT STATE SC: Current state where roommate               | ROOMMATE ST<br>lives          | C,2                        | N          | RESIDENC               | W       |
|---|-------------------------------|----------------------------|------------|------------------------|---------|
| ROOMMATE_CURRENT_STREET_ADDRESS<br>SC: Current street address of room | ROOMMATE ST                   | C,25                       | N          | RESIDENC               | W       |
| ROOMMATE NAME<br>SC: Name of roommate at this resi                    | ROOMMATE<br>idence (other     | C,25<br>th <b>a</b> n spou | N<br>se or | RESIDENC dependent     | W<br>s) |
| SECURITY BACKGROUND REMARKS SC: Any remarks regarding the mer         | SEC RMKS                      | C,100<br>y backgro         | N<br>und   | SEC BACK               | W       |
| TAX_PURPOSE_LIEN SC: Indicates if member has ever                     | TAX LEIN had a lien on        | L<br>property              | N<br>for   | CREDIT H<br>unpaid tax | W<br>es |
| UNPAID_JUDGEMENTS<br>SC: Indicates if member has any t                | UNPAID JUDG<br>unpaid judgeme | L<br>nts                   | N          | CREDIT H               | W       |

# APPENDIX J

# ADP ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the AUTOMATED DATA PROCESSING sub-function as discussed in Chapter IV.



#### STRUCTURE REPORT FOR ADP - VERSION 2.11

#### ADP ACCREDITATION =

ADP ACCREDITATION DATE

- + ADP ACCREDITATION AUTHORIZATION
- + ADP ACCREDITATION EXPIRATION
- + ADP ACCREDITATION STATUS
- + ADP ACCREDITED PROCESSING LEVEL
- + ADP ACCREDITED PROCESSING MODE

#### ADP ASSET =

ADP ASSET SERIAL NUMBER

- + ADP ASSET TYPE
- + ADP\_ASSET\_DESCRIPTION
- + ADP ASSET LOCATION
- + ADP\_ASSET\_NAME
- + ADP\_ASSET\_PRICE
- + ADP ASSET USERS

## ADP CLASSIFIED MEDIA =

ADP\_MEDIA\_SERIAL\_NUMBER

- + ADP\_MEDIA\_CLASSIFICATION
- + ADP MEDIA DIRECTORY + ADP MEDIA LAST UPDATED DATE + ADP MEDIA LOCATION + ADP MEDIA TYPE

## ADP CONTINGENCY PERSONNEL =

ADP CONTINGENCY PERSONNEL NAME

- + ADP CONTINGENCY PERSONNEL TEAM
- + ADP CONT\_PERSONNEL\_HOME\_PHONE
- + ADP CONT PERSONNEL OFFICE PHONE
- + ADP CONT PERSONNEL POSITION

## ADP CONTINGENCY SUPPLY ITEM =

ADP CONTINGENCY SUPPLY STOCK NUM

- + ADP CONTINGENCY SUPPLY NAME
- + ADP\_CONTINGENCY\_SUPPLY\_PHONE
- + ADP\_CONTINGENCY\_SUPPLY\_QUANTITY
- + ADP CONTINGENCY SUPPLY SOURCE

#### ADP COUNTERMEASURE =

ADP COUNTERMEASURE NAME

#### ADP SECURITY =

ADP SECURITY OFFICER APPOINTED

+ ADP SECURITY OFFICER NAME

# ADP SYSTEM =

ADP SYSTEM ID

- + ADP SYSTEM CONTINGENCY DATE
- + ADP SYSTEM CONTINGENCY STATUS
- + ADP SYSTEM DATA COST
- + ADP SYSTEM DATA PROCESSING TIME
- + ADP SYSTEM DATA SECURITY MODE

- + ADP SYSTEM DATA TYPE PROCESSED
- + ADP SYSTEM DESCRIPTION
- + ADP SYSTEM EQUIPMENT COST
- + ADP SYSTEM LOCATION
- + ADP SYSTEM OPS CONTACT LOCATION
- + ADP SYSTEM OPS CONTACT NAME
- + ADP SYSTEM OPS CONTACT OFF CODE
- + ADP\_SYSTEM\_OPS\_CONTACT\_PHONE
- + ADP SYSTEM PRIMARY FUNCTION
- + ADP SYSTEM SCOPE TYPE
- + ADP SYSTEM SOFTWARE
- + ADP SYSTEM SOFTWARE COST
- + ADP SYSTEM TYPE

## ADP THREAT =

THREAT NAME

+ THREAT RISK

# MEMBER =

ADP SUPERVISOR NAME

- + ADP SUPERVISOR LOCATION
- + ADP\_SUPERVISOR\_PHONE

## affect =

ASSESSED RISK LEVEL

# ATTRIBUTE REPORT Author: Dan Montgomery

ATTRIBUTE REPORT FOR ADP - VERSION 2.11

| Attribute Name  | Alias                     | Format                 | Key         | Object & | Туре      |
|---|---------------------------|------------------------|-------------|----------|-----------|
| ADP_ACCREDITATION_AUTHORIZATION<br>SC: Name of person granting inte |                           |                        |             |          | E         |
| ADP_ACCREDITATION_DATE SC: Date of accreditation or inte            | ADP ACCREDI erim authorit | D<br>y to oper         | Y<br>ate    | ADP ACCR | E         |
| ADP_ACCREDITATION_EXPIRATION SC: Expiration date of interim a       |                           |                        |             |          |           |
| ADP_ACCREDITATION_STATUS<br>SC: Status of ADP accreditation         | ADP ACCREDI               | C,1<br><b>-</b> Final) | N           | ADP ACCR | E         |
| ADP_ACCREDITED_PROCESSING_LEVEL SC: Level(s) of data command has    | ADP ACCREDI               | C,8<br>ted to pr       | N<br>cocess | ADP ACCR | E<br>III) |
| ADP_ACCREDITED_PROCESSING_MODE<br>SC: Security mode command has be  |                           |                        |             |          |           |
| ADP_ASSET_DESCRIPTION SC: Description of ADP asset                  | ADP ASSET D               | C,30                   | N           | ADP ASSE | E         |
| ADP_ASSET_LOCATION<br>SC: Location where ADP asset is               | ADP ASSET L<br>kept       | C,30                   | N           | ADP ASSE | E         |
| ADP_ASSET_NAME<br>SC: Name of ADP asset                             | ADP ASSET N               | C,25                   | N           | ADP ASSE | E         |
|   | ADP ASSET P               | \$                     | N           | ADP ASSE | E         |
| ADP ASSET SERIAL NUMBER<br>SC: Serial number of ADP asset           | ADP ASSET S               | C,20                   | Y           | ADP ASSE | E         |
| ADP_ASSET_TYPE SC: Indicates what type asset it                     | ADP ASSET T is, either h  | C,2<br>ardware         | Y<br>(WH)   | ADP ASSE | E<br>(SW) |
| ADP_ASSET_USERS<br>SC: List of active users of the                  | ADP ASSET U<br>ADP asset  | C,100                  | N           | ADP ASSE | E         |
| ADP_CONTINGENCY_PERSONNEL_NAME<br>SC: Name of person on emergency   | ADP CONT PE contingency p | C,30<br>ersonnel       | Y           | ADP PERS | E         |
| ADP_CONTINGENCY_PERSONNEL_TEAM SC: Team person is on for contin     |                           |                        | N           | ADP PERS | E         |
| ADP_CONTINGENCY_SUPPLY_NAME SC: Name of contingency supply i        |                           | C,30                   | N           | ADP CONT | E         |
| ADP_CONTINGENCY_SUPPLY_PHONE<br>SC: Phone number of source for o    | ADP CONT SU               | C,8                    | n           | ADP CONT | E         |

| ADP_CONTINGENCY_SUPPLY_QUANTITY ADP CONT SU N,4 N ADP CONSC: Quantity required of contingency supply item                      | T E  |
|--|------|
| ADP_CONTINGENCY_SUPPLY_SOURCE ADP CONT SU C,30 N ADP CONSC: Source of contingency supply item                                  | T E  |
| ADP_CONTINGENCY_SUPPLY_STOCK_NUM DP CONT SU C,20 Y ADP CONSC: Stock number of the contingercy supply item                      | T E  |
| ADP_CONT_PERSONNEL_HOME_PHONE ADP_CONT_PE C,8 N ADP_PERSC: Home phone number of person on ADP contingency operations team      | .s e |
| ADP_CONT_PERSONNEL_OFFICE_PHONE ADP CONT_PE C,8 N ADP_PER SC: Office phone number of person on ADP contingency operations team | S E  |
| ADP_CONT_PERSONNEL_POSITION ADP CONT PE C,15 N ADP PER SC: Position person holds on contingency operation team                 | S E  |
| ADP_COUNTERMEASURE_NAME ADP COUNTER C,60 Y ADP COUNTER SC: Name of countermeasure for ADP threats and assets                   | N E  |
| ADP MEDIA CLASSIFICATION ADP MEDIA C C,15 N ADP CLASC: Classification level of ADP media (e.g. confidential, secret)           | S E  |
| ADP MEDIA DIRECTORY ADP MEDIA D C,200 N ADP CLASC: Names of files in the directory of the classified media                     | s e  |
| ADP MEDIA LAST UPDATED DATE ADP MEDIA L D N ADP CLASC: Date information on classified media was updated                        | S E  |
| ADP MEDIA LOCATION ADP MEDIA L C,30 N ADP CLASC: Location of classified ADP media  | S E  |
| ADP MEDIA SERIAL NUMBER ADP MEDIA S C,15 Y ADP CLASC: Serial number assigned to media by ADP security officer                  | s e  |
| ADP MEDIA TYPE ADP MEDIA T C,15 N ADP CLASC: Type of ADP media (e.g. floppy disk, magnetic tape)                               | S E  |
| ADP_SECURITY_OFFICER_APPOINTED ADP SEC OFF L N ADP SEC SC: Indicates ADP Security Officer has been appointed in writing        | U E  |
| ADP_SECURITY_OFFICER_NAME ADP SEC OFF C,30 N ADP SEC SC: Name of ADP Security Officer  | e u  |
| ADP_SUPERVISOR_LOCATION ADPSUPVRLOC C,25 N MEMBER SC: THE ADP SUPERVISOR'S OFFICE LOCATION                                     | E    |
| ADP_SUPERVISOR_NAME ADPSUPVRNAM C,50 Y MEMBER SC: THE NAME AND RANK OF THE MEMBER ASSIGNED TO SUPEVISE ADP SECURIT             |      |
| ADP_SUPERVISOR_PHONE ADPSUPVRPHO N,5 N MEMBER SC: THE ADP SECURITY SUPERVISOR'S OFFICE PHONE NUMBER                            | E    |
| ADP_SYSTEM_CONTINGENCY_DATE ADP SYSTEM D N ADP SYS   | ST E |

page: 3

ADP SYSTEM CONTINGENCY STATUS ADP SYSTEM C,1 N ADP SYST E SC: Status code of contingency plan for ADP system

Long Comment :

The following codes are valid for contingency plan status:

E = in existence D = being developed

N = not required

ADP SYSTEM DATA COST ADP SYSTEM N ADP SYST E

SC: Total estimated cost of data kept on ADP system

ADP SYSTEM DATA PROCESSING TIME ADP SYSTEM N,5,2 N ADP SYST E SC: Percent of processing time for this data type (in repeating group of 3)

ADP SYSTEM DATA SECURITY MODE ADP SYSTEM C,20 N ADP SYST E SC: Security mode of operation for this data type (in repeating group of 3)

Long Comment :

The following are valid security modes of operation:

COMPARTMENTED CONTROLLED DEDICATED SYSTEM HIGH LIMITED ACCESS MULTILEVEL

ADP SYSTEM DATA TYPE PROCESSED ADP SYSTEM C,25 N ADP SYST E SC: Type of data processed on system (key in repeating group of three)

Long Comment :

The following types are valid for data types:

SCI SIOP-ESCI TOP SECRET SECRET CONFIDENTIAL PRIVACY ACT FOR OFFICIAL USE ONLY FINANCIAL SENSITIVE MANAGEMENT PROPRIETARY PRIVILEGED LEVEL III (all others)

ADP SYSTEM DESCRIPTION ADP SYSTEM C,200 N ADP SYST E SC: List of components, peripherals, devices, etc, of ADP system

ADP SYSTEM EQUIPMENT COST ADP SYSTEM \$ N ADP SYST E

SC: Total cost of equipment for this ADP system

ADP\_SYSTEM ID ADP SYSTEM C,30 Y ADP SYST E

SC: Identifying name of ADP system being surveyed

ADP SYSTEM LOCATION ADP SYSTEM C, 25 N ADP SYST E

SC: Location where ADP system is kept

ADP SYSTEM OPS CONTACT LOCATION ADP SYSTEM ADP SYST E C, 25 N

SC: Location of ADP system operations point of contact

ADP SYSTEM OPS CONTACT NAME ADP SYSTEM C,25 N ADP SYST E

SC: Name of system operations point of contact

ADP SYSTEM OPS CONTACT OFF CODE ADP SYSTEM N ADP SYST E

SC: Office code of ADP system operations point of contact

ADP SYSTEM OPS CONTACT PHONE ADP SYSTEM C,8 ADP SYST E

SC: Phone number of ADP system operations point of contact

ADP SYSTEM PRIMARY FUNCTION ADP SYSTEM C, 25 ADP SYST E N

SC: Primary function of ADP system, e.g. wordprocessing

ADP SYSTEM SCOPE TYPE ADP SYSTEM C,1 ADP SYST E N

SC: Code indicating what the scope of the system is

Long Comment :

The following codes apply for the scope types:

A = Stand-alone and single controlled area

B = Shared logic (workstations) and single controlled area

C = Shared logic and more than one controlled area

D = Multiple processors and single controlled area

E = Multiple processors and more than one controlled area

F = Used with a remote computer

G = other

ADP\_SYSTEM SOFTWARE ADP SYSTEM C,100 N ADP SYST E

SC: List  $o\bar{f}$  all system software including operating system

ADP SYSTEM SOFTWARE COST ADP SYSTEM N ADP SYST E

SC: Total cost of all software used by system

ADP SYSTEM TYPE ADP SYSTEM C,7 N ADP SYST E

SC: Type of ADP system (ADP, OIS, or Network)

ASSESSED RISK LEVEL ASSESSED RI C,1 N affect

SC: Level of risk to an asset with threat and countermeasure affecting it

Long Comment :

Levels are: H=high, M=Moderate, L=Low

THREAT NAME THREAT NAME C, 45 Y ADP THRE E

SC: Name of threat

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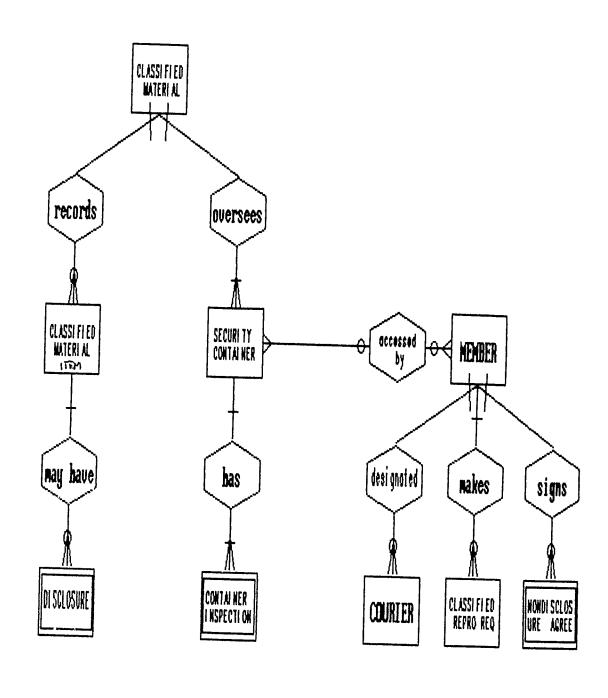
ATTRIBUTE REPORT Author: Dan Montgomery page: 5

THREAT\_RISK THREAT RISK C,1 N ADP THRE E SC: Assessment of this threat risk (H=high, M=Moderate, L=Low)

# APPENDIX K

# CLASSIFIED MATERIAL ENTITY RELATIONSHIP DIAGRAM

This appendix contains the entity relationship diagrams for the CLASSIFIED MATERIAL sub-function as discussed in Chapter IV.



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#### STRUCTURE REPORT FOR CLASSMAT - VERSION 2.11

#### CLASSIFIED MATERIAL =

CLASSMAT SUPERVISOR NAME

- + CLASSMAT SUPERVISOR LOCATION
- + CLASSMAT SUPERVISOR PHONE

#### CLASSIFIED MATERIAL ITEM =

CLASS MATERIAL SERIAL NUMBER

- + CLASSIFIED MATERIAL ADDRESSEE
- + CLASSIFIED MATERIAL COPY NUMBER
- + CLASSIFIED MATERIAL DATE
- + CLASSIFIED MATERIAL RECEIPT DATE
- + CLASSIFIED MATERIAL RECIPIENT
- + CLASS MATERIAL DESCRIPTION
- + CLASS MATERIAL DESTRUCTION DATE
- + CLASS MATERIAL DESTRUCT MEMBER
- + CLASS MATERIAL DESTRUCT WITNESS
- + CLASS MATERIAL NUMBER ENCLOSURES
- + CLASS\_MATERIAL\_ORIGINATOR\_CODE
- + CLASS MATERIAL REGISTERED NUMBER

#### CLASSIFIED REPRO REQUEST =

REPRODUCTION REQUESTOR DATE

- + REPRODUCTION REQUESTOR NAME
- + REPRODUCTION AUTHORITY DATE
- + REPRODUCTION AUTHORITY NAME
- + REPRODUCTION AUTHORITY TITLE
- + REPRODUCTION MATERIAL PAGES
- + REPRODUCTION MATERIAL REASON
- + REPRODUCTION REQUESTED MATERIAL
- + REPRODUCTION REQUESTOR COMMAND
- + REPRODUCTION REQUESTOR TITLE
- + REPRODUCTION REQUEST APPROVAL

## CONTAINER INSPECTION =

CONTAINER INSPECTION/REPAIR DATE
+ CONTAINER INSPECTED BY
+ CONTAINER INSPECTION COMMENTS
+ CONTAINER INSPECTION CONDITION

### COURIER =

COURIER START DATE

- + COURIER END DATE
- + COURIER ITEM DESCRIPTION + COURIER ITEM QUANTITY + COURIER ITEM SIZE

- + COURIER\_OTHER\_DESCRIPTION
- + COURIER\_SECURITY\_MANAGER
- + COURIER\_SIGNATURE\_DATE

# DISCLOSURE =

DISCLOSURE DATE

- + DISCLOSURE MEMBER NAME
- + DISCLOSURE ACTIVITY

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## MEMBER =

- CLASSMAT MEMBER SSN
- + CLASSMAT MEMBER DEPARTMENT
- + CLASSMAT MEMBER NAME

#### NONDISCLOSURE AGREEMENT =

NONDISCLOSURE ACCEPTANCE COMMAND

- NONDISCLOSURE ACCEPTANCE COMMAN
  + NONDISCLOSURE ACCEPTANCE DATE
  + NONDISCLOSURE ACCEPTANCE NAME
  + NONDISCLOSURE ACCEPTANCE SIGN
  + NONDISCLOSURE MEMBER COMMAND
  + NONDISCLOSURE MEMBER SIGNATURE
  + NONDISCLOSURE SECURITY DEBRIEF
  + NONDISCLOSURE SEC DEBRIEF DATE
  + NONDISCLOSURE WITNESS COMMAND
  + NONDISCLOSURE WITNESS DATE

- + NONDISCLOSURE\_WITNESS\_DATE
- + NONDISCLOSURE\_WITNESS\_NAME
- + NONDISCLOSURE WITNESS SIGNATURE
- + NONDISC SEC DEBRIEF WITNESS SIGN

#### SECURITY CONTAINER =

## SECURITY CONTAINER NUMBER

- + SECURITY\_CONTAINER\_BUILDING
- + SECURITY CONTAINER CLASS
- + SECURITY\_CONTAINER\_COMMAND
- + SECURITY CONTAINER CONDITION
- + SECURITY CONTAINER DATE RECEIVED
- + SECURITY CONTAINER DESCRIPTION
- + SECURITY CONTAINER LOCATION
- + SECURITY CONTAINER LOCK MODEL
- + SECURITY CONTAINER OFFICE CODE
- + SECURITY CONTAINER REMARKS
- + SECURITY CONTAINER SERIAL NUMBER
- + SECURITY CONTAINER STOCK NUMBER
- + SEC CONTAINER COMBINATION DATE
- + SEC CONTAINER COMBINATION MEMBER
- + SEC CONTAINER DOCUMENT QUANTITY
- + SEC CONTAINER HASP SERIAL NUMBER
- + SEC CONTAINER LOCK SERIAL NUMBER
- + SEC CONTAINER MANUFACTURE DATE
- + SEC CONTAINER MATERIAL CLASS
- + SEC CONTAINER PERCENT CONFIDENT
- + SEC\_CONTAINER\_PERCENT\_SECRET
- + SEC\_CONTAINER\_PERCENT\_TOP\_SECRET
- + SEC CONTAINER PERCENT UNCLASS
- + SEC CONTAINER SECURITY POINTS

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| ATTRIBUTE REPORT FOR CLASSI | MAT - VERSION | 2.11 |
|-----------------------------|---------------|------|
|-----------------------------|---------------|------|

| Attribute Name  | Alias                         | Format                     | Key<br>    | Object &              | Туре |
|---|-------------------------------|----------------------------|------------|-----------------------|------|
| CLASSIFIED MATERIAL ADDRESSEE SC: Name of activity receiving the        |                               |                            |            |                       |      |
| CLASSIFIED MATERIAL COPY NUMBER SC: Copy number of classified materials |                               | N, 3                       | N          | CLASSMAT              | E    |
| CLASSIFIED MATERIAL DATE SC: Date of classified material                | CLASS MAT D                   | D                          | N          | CLASSMAT              | E    |
| CLASSIFIED MATERIAL RECEIPT DATE SC: Date classified material was       |                               |                            | N          | CLASSMAT              | E    |
| CLASSIFIED MATERIAL RECIPIENT SC: Name of authorized recipient          | CLASS MAT R<br>of classified  | C,30<br>d material         | N          | CLASSMAT              | E    |
| CLASSMAT MEMBER DEPARTMENT SC: THE DEPARTMENT TO WHICH A SP             | CLASSMATMBR<br>ECIFIC MEMBER  | C,25<br>IS ASSIGN          | N<br>ED    | MEMBER                | E    |
| CLASSMAT_MEMBER_NAME<br>SC: THE MEMBER'S FIRST, LAST NAME               |                               |                            |            |                       |      |
| CLASSMAT MEMBER SSN<br>SC: THE CLASSIFIED MATERIAL PROG                 | CLASSMATMBR<br>RAM MEMBER'S   | N,12<br>SOCIAL SEC         | Y<br>URITY | MEMBER<br>NUMBER      | E    |
| CLASSMAT_SUPERVISOR_LOCATION SC: LOCATION OF THE CLASSIFIED M           | CLASSMATSUP<br>ATERIAL PROGRA | C,25<br>AM SUPERVI         | N<br>SOR'S | CLASS MT<br>OFFICE    | E    |
| CLASSMAT_SUPERVISOR_NAME<br>SC: NAME AND RANK OFTHE CLASSIFI            | CLASSMATSUP<br>ED MATERIAL PI | C,50<br>ROGR <b>AM</b> SUP | Y<br>ERVIS | CLASS MT<br>OR        | E    |
| CLASSMAT SUPERVISOR PHONE<br>SC: THE CLASSIFIED MATERIAL PROG           | CLASSMATSUP<br>RAM SUPERVISO  | N,5<br>R'S OFFICE          | n<br>Phoni | CLASS MT<br>E N. MBER | E    |
| CLASS_MATERIAL_DESCRIPTION SC: Unclassified description of              | CLASS MAT D                   | C,60<br>terial             | N          | CLASSMAT              | E    |
| CLASS MATERIAL DESTRUCTION DATE SC: Date classified material was        |                               | D                          | N          | CLASSMAT              | E    |
| CLASS_MATERIAL_DESTRUCT_MEMBER<br>SC: Name of member destroying cl      |                               |                            | N          | CLASSMAT              | E    |
| CLASS MATERIAL DESTRUCT WITNESS SC: Name of member witnessing de        |                               |                            |            |                       | E    |
| CLASS MATERIAL NUMBER ENCLOSURES SC: Number of enclosures in clas       |                               |                            | N          | CLASSMAT              | E    |
| CLASS MATERIAL ORIGINATOR CODE SC: code or UIC of originator of         | CLASS MAT O classified m      | C,7<br>aterial             | N          | CLASSMAT              | E    |

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| CLASS MATERIAL REGISTERED NUMBER CLASS MAT R C,15 N CLASSMAT SC: Registered number of classified material (if any)                    | E         |
|---|-----------|
| CLASS MATERIAL SERIAL NUMBER CLASS MAT S C, 6 Y CLASSMAT SC: Serial or file number of classified material                             | E         |
| CONTAINER_INSPECTED_BY CONT INSPEC C,3 N CONTAINE SC: Initials of person who inspected/repaired container                             | W         |
| CONTAINER INSPECTION/REPAIR DATE CONT INSPEC D Y CONTAINE SC: Date Container was inspected or repaired                                | W         |
| CONTAINER_INSPECTION_COMMENTS CONT INSPEC C,45 N CONTAINE SC: Comments on inspection or repairs made to container                     | W         |
| CONTAINER_INSPECTION_CONDITION CONT INSPEC C,15 N CONTAINE SC: Condition of container after inspection or repair                      | W         |
| COURIER END D N COURIER SC: Ending date for member's eligibility to be a courier  | E         |
| COURIER ITEM DESCRIPTION COURIER ITE C,45 N COURIER SC: Description of item member is authorized to carry (in repeating group)        | E<br>oup) |
| COURIER_ITEM_QUANTITY COURIER ITE N,3 N COURIER SC: Quantity of items member is authorized to carry (in repeating group               | E<br>o)   |
| COURIER_ITEM_SIZE COURIER ITE C,40 N COURIER SC: Approximate size of item(s) (part of repeating group)                                | E         |
| COURIER_OTHER_DESCRIPTION COURIER OTH C,45 N COURIER SC: Description of other items member is authorized to carry                     | E         |
| COURIER_SECURITY_MANAGER COURIER SEC C,30 N COURIER SC: Name of security manager authorizing this courier                             | E         |
| COURIER_SIGNATURE_DATE COURIER SIG D N COURIER SC: Date courier letter was signed   | E         |
| COURIER_START_DATE COURIER STA D Y COURIER SC: Starting date for member to be a courier   | E         |
| DISCLOSURE ACTIVITY DISC ACTIVI C,30 N DISCLOSU SC: Name of activity to which person accessing material belongs                       | W         |
| DISCLOSURE DATE DISC DATE D Y DISCLOSU SC: Date top secret (only) information is disclosed (N/A for all others                        |           |
| DISCLOSURE MEMBER NAME DISC MBR NA C,30 Y DISCLOSU SC: Name of member to which material is disclosed (top secret only)                | W         |
| NONDISCLOSURE ACCEPTANCE COMMAND NONDISC ACC C,30 N NONDISCL SC: Command to which member accepting this agreement for the gov't below |           |
| NONDISCLOSURE ACCEPTANCE DATE NONDISC ACC D N NONDISCL SC: Date member accepting this agreement for the government signed it          | W         |

NONDISCLOSURE ACCEPTANCE NAME NONDISC ACC C,30 NONDISCL W -14 SC: Name of person accepting this agreement for the government NONDISCLOSURE ACCEPTANCE SIGN NONDISC ACC L NONDISCL W SC: Indicates if member accepting this agreement has signed it NONDISCLOSURE DEBRIEF WITNESS NONDISC SEC C,30 NONDISCL W SC: Name of witness witnessing security debrief NONDISCLOSURE MEMBER COMMAND NONDISC MBR C,30 N NONDISCL SC: Command to which member belongs when signing this disclosure NONDISCLOSURE MEMBER SIGNATURE NONDISC MBR N NONDISCL SC: Indicates if member has signed this agreement NONDISC SEC NONDISCLOSURE SECURITY DEBRIEF L N NONDISCL W SC: Indicates if member has been properly debriefed on security matters NONDISCLOSURE SEC DEBRIEF DATE NONDISC SEC NONDISCL W D N SC: Date of member's security debrief date NONDISCLOSURE WITNESS COMMAND NONDISC WIT C,30 N NONDISCL W SC: Command to which witness of this agreement belongs NONDISCLOSURE WITNESS DATE NONDISC WIT NONDISCL SC: Date witness signed this agreement NONDISCLOSURE WITNESS NAME NONDISC WIT C,30 N NONDISCL W SC: Name of witness for this agreement NONDISCLOSURE WITNESS SIGNATURE NONDISC WIT N NONDISCL W SC: Indicates if witness has signed this agreement NONDISC SEC DEBRIEF WITNESS SIGN NONDISC SEC L NONDISCL W N SC: Indicates if witness has signed security debrief sheet REPRODUCTION AUTHORITY DATE REPRO AUTH N CLASSIFI E SC: Date reproduction request was authorized/denied REPRODUCTION AUTHORITY NAME REPRO AUTH C,30 N CLASSIFI E SC: Name of person authorizing reproduction of classified material REPRODUCTION AUTHORITY TITLE REPRO AUTH C, 20 CLASSIFI E N SC: Title of person authorizing reproduction of classified material REPRODUCTION MATERIAL PAGES REPRO MAT P N,3 CLASSIFI E SC: Number of pages in requested material for reproduction REPRODUCTION MATERIAL REASON REPRO MAT R C,60 N SC: Reason/justification for request of classified material reproduction REPRODUCTION REQUESTED MATERIAL REPRO REQ M C,45 CLASSIFI E SC: Title of requested material for reproduction REPRODUCTION REQUESTOR COMMAND REPRO REQUE C,30 N CLASSIFI E

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SC: Command name of person requesting reproduction of classified material

REPRODUCTION\_REQUESTOR\_DATE REPRO REQ D D Y CLASSIFI E SC: Date of request of reproduction of classified material

REPRODUCTION REQUESTOR NAME REPRO REQUE C,30 Y CLASSIFI E SC: Name of person requesting classified material to be reproduced

REPRODUCTION\_REQUESTOR\_TITLE REPRO REQUE C,10 N CLASSIFI E SC: Title of person requesting reproduction of classified material

REPRODUCTION\_REQUEST\_APPROVAL REPRO REQ A L N CLASSIFI E SC: Indicates if reproduction of classified material was approved

SECURITY\_CONTAINER\_BUILDING SEC CONT BL C,15 N SEC CONT E SC: Name or number of building in which security container is located

SECURITY\_CONTAINER\_CLASS SEC CONT CL C,1 N SEC CONT E SC: Class of security container (6 classes)

SECURITY CONTAINER COMMAND SEC CONT CO C,30 N SEC CONT E
SC: Name of command to which security container belongs

SECURITY CONTAINER CONDITION SEC CONT CO C,45 N SEC CONT E SC: Physical condition of security container

SECURITY\_CONTAINER\_DATE\_RECEIVED SEC CONT DA D N SEC CONT E SC: Date security container was received at command

SECURITY CONTAINER DESCRIPTION SEC CONT DE C,25 N SEC CONT E SC: Description of type of security container (e.g. Mosler/5 drawer legal)

SECURITY\_CONTAINER\_LOCATION SEC CONT LO C,30 N SEC CONT E SC: Location (room number) of security container

SECURITY\_CONTAINER\_LOCK\_MODEL SEC CONT LO C,30 N SEC CONT E SC: Make and Model of lock on security container

SECURITY CONTAINER NUMBER SEC CONT NU C,5 Y SEC CONT E SC: Serial number of security container given by command

SECURITY\_CONTAINER\_OFFICE\_CODE SEC CONT OF C,5 N SEC CONT E SC: Office code where security container is kept

SECURITY\_CONTAINER\_REMARKS SEC CONT RE C,100 N SEC CONT E SC: Remarks about security container

SECURITY CONTAINER SERIAL NUMBER SEC CONT SE C,6 N SEC CONT E SC: Official serial number of security container

SECURITY CONTAINER STOCK NUMBER SEC CONT ST C,15 N SEC CONT E SC: Federal stock number of security container

SEC\_CONTAINER\_COMBINATION\_DATE SEC CONT CO D N SEC CONT E SC: Date security container's combination was changed

| SEC_CONTAINER_COMBINATION_MEMBER SEC CONT CO C,30 SC: Name of member who changed combination of security      | N SI<br>containe | EC (       | CONT | E |
|---|------------------|------------|------|---|
| SEC CONTAINER DOCUMENT QUANTITY SEC CONT DO N,4 SC: Number of documents in security container                 | n si             | EC (       | CONT | E |
| SEC_CONTAINER_HASP_SERIAL_NUMBER_SEC_CONT_HA  | n s              | EC (       | CONT | E |
| SEC_CONTAINER_LOCK_SERIAL_NUMBER_SEC_CONT_LO C,10 SC: Serial number on lock case on security container        | n si             | EC (       | CONT | E |
| SEC_CONTAINER_MANUFACTURE_DATE SEC_CONT_MA D SC: Manufacture date of security container                       | n s              | EC (       | CONT | E |
| SEC_CONTAINER_MATERIAL_CLASS SEC CONT MA C,15 SC: Classification of material stored in security conta         | N Si             | EC (       | CONT | E |
| SEC_CONTAINER_PERCENT_CONFIDENT SEC CONT PE N,5,2<br>SC: Percent of material stored in container that is con  | N Si<br>fidenti  | EC (       | CONT | E |
| SEC_CONTAINER_PERCENT_SECRET SEC CONT PE N,5,2 SC: Percent of material stored in container that is sec        | N S              | EC (       | CONT | E |
| SEC_CONTAINER_PERCENT_TOP_SECRET SEC CONT PE N,5,2<br>SC: Percent of material stored in container that is top |                  |            | CONT | E |
| SEC_CONTAINER_PERCENT_UNCLASS SEC CONT PE N,5,2<br>SC: Percent of material stored in container that is unc    | N S<br>lassifi   | EC (<br>ed | CONT | E |
| SEC_CONTAINER_SECURITY_POINTS SEC_CONT_SE N,5 SC: Security points for security container                      | n s              | EC (       | CONT | E |

# APPENDIX L

# DICTIONARY REPORT

This appendix contains the Dictionary Report for the consolidated data dictionary.

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## DICTIONARY REPORT

### DIAGRAMS REPRESENTED IN THE 'DMAIN' DICTIONARY:

DAPA
SAFETY
MEDICAL
WQSB
ADP
CLEARANC
PHYSICAL
PRP
VISITOR
SECURITY
CLASSMAT

## OBJECTS:

| 1)  | ADP ACCREDITATION ADP ASSET ADP CLASSIFIED MEDIA ADP CONTINGENCY PERSONNEL ADP CONTINGENCY SUPPLY ITEM ADP COUNTERMEASURE  | ADP ACCR |
|-----|--|----------|
| 2)  | ADP ASSET  | ADP ASSE |
| 3)  | ADP CLASSIFIED MEDIA   | ADP CLAS |
| 4)  | ADP CONTINGENCY PERSONNEL  | ADP PERS |
| 5)  | ADP CONTINGENCY SUPPLY ITEM  | ADP CONT |
| 6)  | ADP COUNTERMEASURE   | ADP COUN |
| 7)  | ADP SECURITY   | ADP SECU |
| 8)  | ADP CONTINGENCY PERSONNEL ADP CONTINGENCY SUPPLY ITEM ADP COUNTERMEASURE ADP SECURITY ADP SYSTEM ADP THREAT ARREST BILLET CHARACTER REFERENCE CLASSIFIED MATERIAL CLASSIFIED MATERIAL CLASSIFIED REPRO REQUEST CLEARANCE/ACCESS CLIENT SCREEN COMPARTMENT CONTAINER INSPECTION COURIER CREDIT HISTORY CREDIT REFERENCE DAPA DENTAL DEPARTMENT DISCLOSURE ELICTRICAL SAFETY CHECKS EMPLOYMENT EQUIPMENT | ADP SYST |
| 9)  | ADP THREAT   | ADP THRE |
| 10) | ARREST   | ARREST   |
| 11) | BILLET   | BILLET   |
| 12) | CHARACTER REFERENCE  | CHARACTE |
| 13) | CLASSIFIED MATERIAL  | CLASS MT |
| 14) | CLASSIFIED MATERIAL ITEM   | CLASSMAT |
| 15) | CLASSIFIED REPRO REQUEST   | CLASSIFI |
| 16) | CLEARANCE/ACCESS   | CLEARANC |
| 17) | CLIENT SCREEN  | SCREEN   |
| 18) | COMPARTMENT  | COMPARTM |
| 19) | CONTAINER INSPECTION   | CONTAINE |
| 20) | COURIER  | COURIER  |
| 21) | CREDIT HISTORY   | CREDIT H |
| 22) | CREDIT REFERENCE   | CREDIT R |
| 23) | DAPA   | DAPA     |
| 24) | DENTAL   | DENTAL   |
| 25) | DEPARTMENT   | DEPT     |
| 26) | DISCLOSURE   | DISCLOSU |
| 27) | ELECTRICAL SAFETY CHECKS   | ELECSAFE |
| 28) | EMPLOYMENT   | EMPLOYME |
| 29) | EQUIPMENT  | EQUIP    |
| 30) | EQUIPMENT TAG OUT  | TAG OUT  |
| 31) | FOREIGN ASSOCIATE  | FOREIGN  |
| 32) | FOREIGN NATIONAL VISITOR   | FOREIGN  |
| 33) | GAS FREE TEST  | GAS FREE |
| 34) | HAZARD/DEFICIENCY ITEM   | HAZ/DEFC |
| 35) | EMPLOYMENT EQUIPMENT EQUIPMENT TAG OUT FOREIGN ASSOCIATE FOREIGN NATIONAL VISITOR GAS FREE TEST HAZARD/DEFICIENCY ITEM HAZARDOUS MATERIAL ITEM HEARING CONSERVATION SURVEY HEARING PROTECTION HEAT EXPOSURE  | HAZMAT   |
| 36) | HEARING CONSERVATION SURVEY  | HEARING  |
| 37) | HEARING PROTECTION   | HEARING  |
| 38) | HEAT EXPOSURE  | HEAT EXP |
|     |  |          |

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Author: Dan Montgomery 39) HEAT STRESS
40) HEAT STRESS EQUIPMENT
41) IMMUNIZATION
42) INJURY
43) INVENTORY ITEM
44) KEYS
45) KEYS & LOCKS
46) LAB TESTS
47) MED LIBRARY ITEM
48) MEDICAL
49) MEDICAL
49) MEDICAL CHIT
50) MEDICAL CONSULT
51) MEDICAL SURVEILLANCE EVAL
52) MEDICINAL
MEDICINA
MEMBER

MEMBER

MEDICAL SURVEILLANCE EVAL

MEDICINAL

MEDICINAL

MEDICINAL

MEDICINAL

MEDICINAL

MEDICINA

MEDICINA

MEMBER

MEMBER

S14 MISHAP INVESTIGATION

MISHAP

MISHAP

MOTOR VEHICLE COURSE

MOTRVEH

NONDISCL

MOTOR VEHICLE COURSE

MOTOR VEHICLE

OFF DUTY

ORGANIZA

PRP

S0 ORGANIZATION

ORGANIZA

PRP

GO PEST CONTROL

PEST CON

PRP

FRP

MEDICAL

PRP

MEDICAL

OFF DUTY

ORGANIZA

PRP

PRP

MEDICAL

PROTOR

MEDICINA

MISHAP

MOTOVEH

MOTOVEH

NONDISCL

PEST CON

PRP

PRP

BILL

PRP BILL

REFERRAL

REFERRAL

REFERRAL

REFERRAL

REFERRAL

RESIDENC

RADS

RADEX

REFERRAL

REFERRAL
REFERRAL

REFERRAL

REFERR

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| ٥E١          |                           |                     |
|--------------|---------------------------|---------------------|
| 95)          | audits                    | audits              |
| 96)          |                           | belong t            |
| 97)          |                           | belongs             |
|              | carry                     | carry               |
|              | conducted on              | conduct             |
|              | conducts                  | conducts            |
|              | consolidates              | consolid            |
|              | contacts                  | contacts            |
| 103)         | contains                  | contains            |
| 104)         | controls coordinates      | controls            |
| 105)         | coordinates               | coord               |
|              | designated                | designat            |
| 107)         | develops                  | develops            |
|              | done by                   | done by             |
|              | executes                  | executes            |
| 110)         | filed                     | filed               |
| 111)         | given to goes to          | given to            |
| 112)         | goes to                   | goes to             |
| 113)         | granted                   | granted             |
| 114)         | has                       | ĥas                 |
| 115)         | investigates              | investiq            |
| 116)         | is also                   | is also             |
| 117)         | is assigned               | assigned            |
| 118)         | is listed                 | is liste            |
| 119)         | is monitored              | monitord            |
| 120)         | is obtained               | is obtai            |
| 121)         | is received               | received            |
| 122)         | is received is screened   | is scree            |
|              | is selected               | is selec            |
|              | is surveyed               | is surve            |
| 125)         | is tracked                | tracked             |
|              | issued                    | issued              |
|              | issued to                 | issue to            |
| 128)         | keeps                     | keeps               |
| 129)         | keeps<br>kept by          | kept by             |
| 130)         | logs                      | logs                |
|              | maintained                | maintain            |
| 132)         | maintained by             | maintain            |
|              | maintained on             | maintan             |
| 134)         |                           | maintain            |
|              | makes                     | makes               |
| 136)         |                           |                     |
| 137)         | may have                  | may be              |
| 138)         | monitors                  | may have            |
| 139)         | obtains                   | monitors<br>obtains |
| 140)         | occupies                  |                     |
| 141)         | occurs to                 | occupies            |
| 142)         | organized by              | occurs              |
| 143)         | oversees                  | organize            |
| 144)         | participates              | oversees            |
| 145)         | received by               | particip            |
| 146)         | recorded by               | receivd             |
| 147)         |                           | recorded            |
|              | records                   | records             |
| 148)         | referred                  | referred            |
| 149)<br>150) | responsible for restricts | responsi            |
| 50)          | TESULICES                 | restrict            |
|              |                           |                     |

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| 152)<br>153)<br>154)<br>155)<br>156)<br>157)<br>158) | reviews signs specifies supervises taken by tested by tracked by tracks undergoes | reviews signs specifie supervis taken by test by tracked tracks undergo |         |
| ATTRI  | BUTES:  |   |         |
| 1)   | ACCESS_AUTHORITY  | ACC AUTH  | C,20    |
| 2)   | ACCESS_COMMAND  | ACC COMMAND   | C,20    |
| 3)   | ACCESS_FROM_DATE  | ACCESS FROM DATE  | D       |
| 4)   | ACCESS_LEVEL  | ACCESS LEVEL  | C,15    |
| 5)   | ACCESS_LEVEL_DATE   | ACCESS DATE   | D       |
| 6)   | ACCESS_REMARKS  | ACC RMKS  | C,30    |
| 7)   | ACCESS_TO_DATE  | ACCESS TO DATE  | D       |
| 8)   | ADMIN_SCREEN_ACTION_ITEM_CODE   | ADSCRITM  | N, 2    |
| 9)   | ADMIN_SCREEN_ACTION_ITEM_COMME  | NT ADACTCMNT  | C,12    |
| -  | ADMIN_SCREEN_ACTION_ITEM_DATE   | ADSCRDT   | D       |
| 11)  | ADP_ACCREDITATION_AUTHORIZATIO  | N ADP ACCREDIT AUTH   | C,30    |
| 12)  | ADP_ACCREDITATION_DATE  | ADP ACCREDIT DATE   | D       |
| 13)  | ADP_ACCREDITATION_EXPIRATION  | ADP ACCREDIT EXPIRATION   | D       |
| 14)  | ADP_ACCREDITATION_STATUS  | ADP ACCREDIT STATUS   | C,1     |
| 15)  | ADP_ACCREDITED_PROCESSING_LEVE  | L ADP ACCREDIT PROC LEVEL   | C,8     |
| 16)  | ADP_ACCREDITED_PROCESSING_MODE  | ADP ACCREDIT PROC MODE  | C,20    |
| 17)  | ADP_ASSET_DESCRIPTION   | ADP ASSET DESC  | C,30    |
| 18)  | ADP_ASSET_LOCATION  | ADP ASSET LOC   | C,30    |
| 19)  | ADP_ASSET_NAME  | ADP ASSET NAME  | C,25    |
| 20)  | ADP_ASSET_PRICE   | ADP ASSET PRICE   | \$      |
| 21)  | ADP_ASSET_SERIAL_NUMBER   | ADP ASSET SER NUM   | C,20    |
| 22)  | ADP_ASSET_TYPE  | ADP ASSET TYPE  | C,2     |

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| • | 23)           | ADP_ASSET_USERS           | ADP                          | ASSET  | USERS         |        | C, 10.  |
| 0 | 24)           | ADP_CONTINGENCY_PERSONNE  | _NAME ADP                    | CONT   | PERSONNEL NA  | ME     | C,30    |
|   | 25)           | ADP_CONTINGENCY_PERSONNE  | L_TEAM ADP                   | CONT   | PERS TEAM     |        | C,15    |
|   | 26)           | ADP_CONTINGENCY_SUPPLY_N  | AME ADP                      | CONT   | SUPPLY NAME   |        | C,30    |
|   | 27)           | ADP_CONTINGENCY_SUPPLY_P  | HONE ADP                     | CONT   | SUPPLY PHONE  |        | C,8     |
|   | 28)           | ADP_CONTINGENCY_SUPPLY_Q  | JANTITY ADP                  | CONT   | SUPPLY QUANT  | ITY    | N, 4    |
|   | 29)           | ADP_CONTINGENCY_SUPPLY_Se | DURCE ADP                    | CONT   | SUPPLY SOURCE | E      | c,30    |
|   | 30)           | ADP_CONTINGENCY_SUPPLY_S  | rock_num adp                 | CONT   | SUPPLY STOCK  | NUM    | C,20    |
|   | 31)           | ADP_CONT_PERSONNEL_HOME_  | PHONE ADP                    | CONT   | PERS HOME PH  | ONE    | C,8     |
|   | 32)           | ADP_CONT_PERSONNEL_OFFIC  | E_PHONE ADP                  | CONT   | PERS OFFICE   | PHONE  | C,8     |
|   | 33)           | ADP_CONT_PERSONNEL_POSIT  | ION ADP                      | CONT   | PERS POSITIO  | N      | C,15    |
|   | 34)           | ADP_COUNTERMEASURE_NAME   | ADP                          | COUNT  | Termeasure na | ME     | C,60    |
|   | 35)           | ADP_MEDIA_CLASSIFICATION  | ADP                          | MEDI   | A CLASS       |        | C,15    |
| 0 | 36)           | ADP_MEDIA_DIRECTORY       | ADP                          | MEDI   | A DIRECTORY   |        | C,20    |
| U | 37)           | ADP_MEDIA_LAST_UPDATED_D  | ATE ADP                      | MEDI   | A LAST UPDATE | D DATE | D       |
|   | 38)           | ADP_MEDIA_LOCATION        | ADP                          | MEDI   | A LOC         |        | C,30    |
|   | 39)           | ADP_MEDIA_SERIAL_NUMBER   | ADP                          | MEDI   | A SER NUM     |        | C,15    |
|   | 40)           | ADP_MEDIA_TYPE            | ADP                          | MEDI   | A TYPE        |        | C,15    |
|   | 41)           | ADP_MEMBER_NAME           | ADP                          | mbrnai | M             |        | C,50    |
|   | 42)           | ADP_SECURITY_OFFICER_APP  | OINTED ADP                   | SEC (  | OFF APPOINTED | •      | r       |
|   | 43)           | ADP_SECURITY_OFFICER_NAM  | E ADP                        | SEC    | OFF NAME      |        | c,30    |
|   | 44)           | ADP_SUPERVISOR_LOCATION   | ADP                          | SUPVR  | roc           |        | C,25    |
|   | 45)           | ADP_SUPERVISOR_NAME       | ADP                          | SUPVR  | NAM           |        | C,50    |
|   | 46)           | ADP_SUPERVISOR_PHONE      | ADP                          | SUPVR  | PHON          |        | N, 5    |
|   | 47)           | ADP_SYSTEM_CONTINGENCY_D  | ATE ADP                      | SYST   | EM CONT STATU | S DATE | D       |
|   | 48)           | ADP_SYSTEM_CONTINGENCY_S  | TATUS ADP                    | SYST   | EM CONT STATU | ıs     | C,1     |
|   | 49)           | ADP_SYSTEM_DATA_COST      | ADP                          | SYST   | EM DATA COST  |        | \$      |
| 2 | 50)           | ADP_SYSTEM_DATA_PROCESSI  | NG_:TIME ADP                 | SYST   | EM DATA PROC  | TIME   | N,5,    |

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|   | 51)             | ADP_SYSTEM_DATA_SECURITY_MODE | ADP SYSTEM DATA SEC MODE         | C,20    |
|   | 52)             | ADP_SYSTEM_DATA_TYPE_PROCESSE | D ADP SYSTEM DATA TYPE PROC      | C,25    |
|   |                 | ADP_SYSTEM_DESCRIPTION        | ADP SYSTEM DESC                  | C,20    |
| ( | 0<br>54)        | ADP_SYSTEM_EQUIPMENT_COST     | ADP SYSTEM EQUIP COST            | \$      |
|   | 55)             | ADP_SYSTEM_ID                 | ADP SYSTEM ID                    | C,30    |
|   | 56)             | ADP_SYSTEM_LOCATION           | ADP SYSTEM LOC                   | C,25    |
|   | 57)             | ADP_SYSTEM_OPS_CONTACT_LOCATI | ON ADP SYSTEM OPS CONTACT LOC    | C,25    |
|   | 58)             | ADP_SYSTEM_OPS_CONTACT_NAME   | ADP SYSTEM OPS CONTACT NAME      | C,25    |
|   | 59)             | ADP_SYSTEM_OPS_CONTACT_OFF_CO | DE ADP SYSTEM OPS CONTACT OFF CO | DE C,5  |
|   | 60)             | ADP_SYSTEM_OPS_CONTACT_PHONE  | ADP SYSTEM OPS CONTACT PHONE     | C,8     |
|   | 61)             | ADP_SYSTEM_PRIMARY_FUNCTION   | ADP SYSTEM PRIMARY FUNCTION      | C,25    |
|   | 62)             | ADP_SYSTEM_SCOPE_TYPE         | ADP SYSTEM SCOPE                 | C,1     |
| ı | 63)             | ADP_SYSTEM_SOFTWARE           | ADP SYSTEM SOFTWARE              | C,10    |
| ' |                 | ADP_SYSTEM_SOFTWARE_COST      | ADP SYSTEM SOFTWARE COST         | \$      |
|   | 65)             | ADP_SYSTEM_TYPE               | ADP SYSTEM TYPE                  | C,7     |
|   | 66)             | ALCOHOL_PROBLEMS              | ALCOHOL PROBS                    | L       |
|   | 67)             | ANTI_MALARIAL_PROPHYLAXIS_IN  | ANTI MAL PRO IND                 | L       |
|   | 68)             | ANTI_MALARIAL_START_DATE      | ANTI MAL START DATE              | D       |
|   | 69)             | ANTI_MALARIAL_STOP_DATE       | ANTI MAL STOP DATE               | D       |
|   | 70)             | ARRESTING_AGENCY              | ARR AGENCY                       | C,25    |
|   | 71)             | ARRESTING_AGENCY_CITY         | ARR AGENCY CITY                  | C,25    |
|   | 72)             | ARRESTING_AGENCY_STATE        | ARR AGENCY STATE                 | C,2     |
|   | 73)             | ARREST_COURT_CITY             | ARR COURT CITY                   | C, 25   |
|   | 74)             | ARREST_COURT_NAME             | ARR COURT NAME                   | C,40    |
|   | 75)             | ARREST_COURT_STATE            | ARR COURT STATE                  | C,2     |
|   | 76)             | ARREST_DATE                   | ARREST DATE                      | D       |
|   | 77)             | ARREST_DISPOSITION            | ARR DISP                         | C,40    |
|   | 78)             | ARREST_OFFENSE                | ARREST OFFENSE                   | C,25    |

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| 79)             | ASSESSED_RISK_LEVEL     | AS                             | SESSED I | RISK LEVEL   | C,1   | L  |
| 80)             | BILLET_MEMBER_NAME      | вп                             | LNAM     |              | C,4   | 15 |
| 81)             | BILLET_NUMBER           | ві                             | LNUM     |              | C,1   | LO |
| 82)             | BILLET_RANK_ACTUAL      | BI                             | LRANKAC' | r            | C,4   | 1  |
| 83)             | BILLET_RANK_ASSIGNED    | BI                             | LRANKAS( | G            | c,5   | 5  |
| 84)             | BILLET_RATE_ACTUAL      | BI                             | LRATACT  |              | C,5   | 5  |
| 85)             | BILLET_RATE_ASSIGNED    | BI                             | LRATASG  |              | C,1   | 15 |
| 86)             | BILLET_SOCIAL_SECURITY_ | NUMBER BI                      | LSSN     |              | N, 1  | 12 |
| 87)             | BILL_DUTY_SECTION       | BI                             | LDTYSEC  |              | N, 1  | Ĺ  |
| 88)             | BILL_LAST_UPDATED_BY    | BI                             | LUPDINA  | М            | C,2   | 25 |
| 89)             | BILL_LAST_UPDATED_DATE  | BI                             | LDT      |              | D     |    |
| 90)             | BILL_MEMBER_NAME        | ві                             | LMEMNAM  |              | c,2   | 25 |
| 91)             | BILL_NAME               | BI                             | LNAM     |              | C,    | 45 |
| 92)             | BILL_NUMBER             | ві                             | LNUM     |              | N,    | 6  |
| 93)             | BILL_SFECIAL_QUALIFICAT | ions bi                        | LSPECQU  | AL           | C,    | 50 |
| 94)             | BILL_STATION_DUTY_PROVI | DE BI                          | LSTAPRO  | •            | С,    | 25 |
| 95)             | BILL_STATION_NAME       | ві                             | LSTA     |              | С,    | 25 |
| 96}             | BILL_STATION_NUMBER_ASS | IGNED BI                       | LSTANUM  | I            | N,    | 2  |
| 97)             | BILL_TYPE_CODE          | ві                             | LLTYP    |              | C,    | 1  |
| 98)             | CIVILIAN_LICENSE        | CI                             | VILIAN   | LICENSE      | C,    | 30 |
| 99)             | CLASSIFIED_MATERIAL_ADD | ressee cl                      | ASS MAT  | ADDRESSEE    | C,    | 50 |
| 100)            | CLASSIFIED_MATERIAL_COP | Y_NUMBER CL                    | ASS MAT  | COPY NUM     | N,    | 3  |
| 101)            | CLASSIFIED_MATERIAL_DAT | E CL                           | ASS MAT  | DATE         | D     |    |
| 102)            | CLASSIFIED_MATERIAL_REC | EIPT_DATE CL                   | ASS MAT  | RECEIPT DATE | D     |    |
| 103)            | CLASSIFIED_MATERIAL_REC | IPIENT CL                      | ASS MAT  | RECIPIENT    | C,    | 30 |
| 104)            | CLASSMAT_MEMBER_DEPARTM | ENT CL                         | ASSMATM  | BRDEPT       | c,    | 25 |
| 105)            | CLASSMAT_MEMBER_NAME    | CI                             | LASSMATM | IBRNAM       | c,    | 45 |
| 106)            | CLASSMAT_MEMBER_SSN     | CL                             | LASSMATM | IBRSSN       | N,    | 12 |

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| 107)            | CLASSMAT_SUPERVISOR_LOCA   | TION                | CLASSM | ATSUPVE         | LOC         |          | C,25    |
| 108)            | CLASSMAT_SUPERVISOR_NAME   |                     | CLASSM | ATSUPVE         | NAM         |          | C,50    |
| 109)            | CLASSMAT_SUPERVISOR_PHON   | E                   | CLASSM | ATSUPVE         | PHON        |          | N,5     |
| 110)            | CLASS_MATERIAL_DESCRIPTION | ON                  | CLASS  | MAT DES         | C           |          | C,60    |
| 111)            | CLASS_MATERIAL_DESTRUCTION | ON_DATE             | CLASS  | MAT DES         | T DATE      |          | D       |
| 112)            | CLASS_MATERIAL_DESTRUCT_   | MEMBER              | CLASS  | MATERI <i>I</i> | L DEST MBF  | <b>l</b> | C,30    |
| 113)            | CLASS_MATERIAL_DESTRUCT_   | WITNESS             | CLASS  | MAT DES         | T WITNESS   |          | C,30    |
| 114)            | CLASS_MATERIAL_NUMBER_EN   | CLOSURES            | CLASS  | MAT NUN         | I ENCLS     |          | N,3     |
| 115)            | CLASS_MATERIAL_ORIGINATO   | R_CODE              | CLASS  | MAT OR          | G CODE      |          | C,7     |
| 116)            | CLASS_MATERIAL_REGISTERE   | D_NUMBER            | CLASS  | MAT REC         | NUM         |          | C,15    |
| 117)            | CLASS_MATERIAL_SERIAL_NU   | MBER                | CLASS  | MAT SEI         | NUM         |          | C,6     |
| _               | CLEARANCE_ADMINISTRATIVE   | COMMENT             | CLR AD | MIN COM         | ments       |          | C,10    |
| 0<br>119)       | CLEARANCE_AUTHORIZING_CO   | MMAND               | CLR AU | TH COM          | IAND        |          | C,25    |
| 120)            | CLEARANCE_BASIS            |                     | CLR BA | SIS             |             |          | C,15    |
| 121)            | CLEARANCE_DATE_GRANTED     |                     | CLR DA | TE              |             |          | D       |
| 122)            | CLEARANCE_INVESTIGATION_   | AGENCY              | CLR IN | WEST A          | GENCY       |          | C,25    |
| 123)            | CLEARANCE_INVESTIGATION_   | DATE                | CLR IN | IVEST D         | ATE         |          | D       |
| 124)            | CLEARANCE_INVESTIGATION_   | TYPE                | CLR IN | VEST T          | PE          |          | C,15    |
| 125)            | CLEARANCE_INVEST_CASE_CO   | NTROL_NO            | CLR IN | IVEST C         | ASE CONT NO | )        | C,15    |
| 126)            | CLEARANCE_LAST_UPDATED_B   | SY                  | CLR LA | ST UPD          | BY          |          | С,3     |
| 127)            | CLEARANCE_LAST_UPDATED_D   | ATE                 | CLR LA | AST UPD         | DATE        |          | D       |
| 128)            | CLEARANCE_LEVEL            |                     | CLR LE | EVEL            |             |          | C,15    |
| 129)            | CLEARANCE_MEMBER_DEPARTM   | 1ENT                | CLRNC  | 1BRDEPT         |             |          | C,25    |
| 130)            | CLEARANCE_MEMBER_NAME      |                     | CLRNC  | 1BRNAM          |             |          | C,50    |
| 131)            | CLEARANCE_MEMBER_SSN       |                     | CLRNC  | abrssn          |             |          | N, 12   |
| 132)            | CLEARANCE_REMARKS          |                     | CLR RE | MARKS           |             |          | C,50    |
| 133)            | COMMUNIST_ORGANIZATION_M   | 1EMBER              | COMM   | ORG MEM         | BER         |          | L       |
| 134)            | COMPARTMENT_ACCESS_AUTHO   | RITY                | COMPA  | CAUTH           |             |          | C,50    |

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| 135)            | COMPARTMENT_ACCESS_LAST_  | UPDATE COMPU   | JPDAT                  | D       |
| 136)            | COMPARTMENT_DATE_ACCESS_  | APPROVED COMPA | ACCDAT                 | D       |
| 137)            | COMPARTMENT_NAME          | COMP           | NAME                   | C,25    |
| 138)            | COMPARTMENT_NUMBER        | COMP           | NUM                    | C,20    |
| 139)            | CONTAINER_INSPECTED_BY    | CONT           | INSPECTED BY           | C,3     |
| 140)            | CONTAINER_INSPECTION/REP  | AIR_DATE CONT  | INSPECTION/REPAIR DATE | D       |
| 141)            | CONTAINER_INSPECTION_COM  | MENTS CONT     | INSPECTION COMMENTS    | C,45    |
| 142)            | CONTAINER_INSPECTION_CON  | DITION CONT    | INSPECTION COND        | C,15    |
| 143)            | COURIER_END_DATE          | COUR           | IER END DATE           | D       |
| 144)            | COURIER_ITEM_DESCRIPTION  | COUR           | IER ITEM DESC          | C,45    |
| 145)            | COURIER_ITEM_QUANTITY     | COUR           | ER ITEM QTY            | N, 3    |
| 146)            | COURIER_ITEM_SIZE         | COUR           | ER ITEM SIZE           | C,40    |
| 147)            | COURIER_OTHER_DESCRIPTION | ON COUR        | IER OTHER DESC         | C,45    |
| 148)            | COURIER_SECURITY_MANAGER  | COUR:          | IER SEC MNGR           | C,30    |
| 149)            | COURIER_SIGNATURE_DATE    | COUR           | IER SIGNATURE DATE     | D       |
| 150)            | COURIER_START_DATE        | COUR           | IER START DATE         | D       |
| 151)            | CREDIT_REFERENCE_ACCOUNT  | NUMBER CR R    | EF ACCT NUM            | C,25    |
| 152)            | CREDIT_REFERENCE_CITY     | CR R           | EF CITY                | C,25    |
| 153)            | CREDIT_REFERENCE_NAME     | CRED           | IT REF NAME            | C,25    |
| 154)            | CREDIT_REFERENCE_STATE    | CR R           | EF STATE               | C,2     |
| 155)            | CREDIT_REFERENCE_STREET_  | ADDRESS CR R   | EF STREET              | C,25    |
| 156)            | DAILY_BROMINE_CHLORINE_E  | RESIDUAL WTRC  | HBR                    | C,5     |
| 157)            | DAPA_CERTIFICATION_DATE   | DAPC           | ERTDT                  | D       |
| 158)            | DAPA_CERTIFICATION_DUE_I  | DATE DAPC      | ERDU                   | D       |
| 159)            | DAPA_CLIENT_NAME_         | DAPC           | LINAM                  | C,50    |
| 160)            | DAPA_CLIENT_NUMBER        | DAPC           | LINUM                  | N,7     |
| 161)            | DAPA_DESIGNATION_IND      | DAPD           | ESIND                  | L       |
| 162)            | DAPA_DETECTION_CATEGORY   | DAPD           | ETCAT                  | N, 1    |

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| 163)            | DAPA_DETECTION_PREVIOUS | _NUMBER                 | DAPDETI | PRE        | N, 1     |
| 164)            | DAPA_FACILITY_CODE      |                         | DAPCODI | E          | C,5      |
| 165)            | DAPA_FACILITY_STAFF_NUM | BER                     | DAPSTAI | FNUM       | N, 10    |
| 166)            | DAPA_NAME_OF_ADVISOR    |                         | DAPADVI | NAM        | C,45     |
| 167)            | DAPA_PHONE              |                         | DAPPHO  |            | N, 12    |
| 168)            | DAPA_PREVIOUS_TOXOCOLOG | Y_IND                   | DAPPRE  | rx         | L        |
| 169)            | DAPA_REFERRAL_AGENCY    |                         | DAPREF  | AGC        | C,50     |
| 170)            | DAPA_REFERRAL_CONTACT_N | AME                     | DAPREF  | NAM        | C,45     |
| 171)            | DAL'A_REFERRAL_PHONE    |                         | DAPREF  | PHO        | N,12     |
| 172)            | DAPA_REFERRAL_TYPE_CODE |                         | DAPREF  | TYP        | N, 1     |
| 173)            | DAPA_SCREEN_CLIENT_SIGN | ATURE_IND               | DAPCLI  | SIG        | L        |
| 174)            | DAPA_SCREEN_COUNSELOR_N | AME                     | DAPCOU  | NAM        | C,50     |
| 175)            | DAPA_SCREEN_DATE        |                         | DAPSCR  | NDT        | D        |
| 176)            | DAPA_SCREEN_PROGRAM_COD | E                       | DAPSCR  | NPRO       | C,1      |
| 177)            | DAPA_SCRN_COUNSEL_SIGNA | TURE_IND                | DAPCOU  | SIG        | L        |
| 178)            | DATE_OTHER_NAME_USED    |                         | DATE O  | THER NAME  | D        |
| 179)            | DEBT_DELINQUINCY        |                         | DEBT D  | ELINQUINCY | L        |
| 180)            | DENTAL_CLASSIFICATION_N | UMBER                   | DENTNB  | R          | N, 1     |
| 181)            | DENTAL_CLASS_PREVIOUS_N | UMBER                   | DNTPVN  | В          | N, 1     |
| 182)            | DENTAL_EXAM_DUE_DATE    |                         | DNTEXD  | ប          | D        |
| 183)            | DENTAL_EXAM_LAST_DATE   |                         | DNTEXD  | T          | D        |
| 184)            | DENTAL_FOLLOWUP_DATE    |                         | DNTFWD  | T          | D        |
| 185)            | DENTAL_PANOGRAPH_DATE_C | N_FILE                  | DNTPND  | T          | D        |
| 186)            | DENTAL_SURVEY_DATE      |                         | DETSUR  | D          | D        |
| 187)            | DENTAL_SURVEY_INDICATOR | ι                       | DETSUR  | I          | L        |
| 188)            | DEPARTMENT_HEAD_NAME    |                         | DEPTHD  | NAM        | C,45     |
| 189)            | DEPARTMENT_LOCATION     |                         | DEPTLO  | c          | C,25     |
| 190)            | DEPARTMENT_NAME         |                         | DEPTNA  | М          | C,25     |

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| 192)            | DISCLOSURE_ACTIVITY      |                          | DISC ACTIVITY           | (    | c <b>,</b> 30 |
| 193)            | DISCLOSURE_DATE          |                          | DISC DATE               | 1    | D             |
| 194)            | DISCLOSURE_MEMBER_NAME   |                          | DISC MBR NAME           | (    | C,30          |
| 195)            | ELEC_AUTHORIZATION_DATE  |                          | ELECAUTHDATE            | 1    | D             |
| 196)            | ELEC_AUTHORIZATION_NAME  |                          | ELECAUTHNAME            | (    | C,50          |
| 197)            | ELEC_CHECK_DATE          |                          | ELECCHECKDATE           | 1    | D             |
| 198)            | ELEC_CHECK_DUE_DATE      |                          | ELECCHKDU               | 1    | D             |
| 199)            | ELEC_CHECK_ELECTRICIAN_N | NAME                     | ELECCHECKNAME           | •    | C,45          |
| 200)            | ELEC_CHECK_TYPE          |                          | ELECCHKTYPE             | •    | C,50          |
| 201)            | ELEC_EQUIPMENT_WORKCENTE | ER_NAME                  | ELECEQUIPWC             | (    | C,25          |
| 202)            | ELEC_EQUIP_DIVISION_NAME | E                        | ELECEQUIPDIV            |      | C,25          |
| 203)            | ELEC_EQUIP_ITEM_NAME     |                          | ELECEQUIPNAM            |      | C,50          |
| 204)            | ELEC_EQUIP_ITEM_SERIAL_N | NUMBER                   | ELECEQUIPSERNUM         | :    | N, 15         |
| 205)            | EMPLOYED_FROM_DATE       |                          | EMPLOYED FROM DATE      | :    | D             |
| 206)            | EMPLOYED_TO_DATE         |                          | EMPL TO DATE            |      | D             |
| 207)            | EMPLOYER_ADDRESS         |                          | EMPL ADDRESS            |      | C,45          |
| 208)            | EMPLOYER_IMMEDIATE_SUPER | RVISOR                   | EMPL IMMED SUPERVISOR   |      | C,30          |
| 209)            | employer_name            |                          | EMPL NAME               |      | C, 25         |
| 210)            | EMPLOYER_PHONE           |                          | EMPL PHONE              |      | C,12          |
| 211)            | EMPLOYMENT POSITION      |                          | EMPLOYMENT POS          |      | C,30          |
| 212)            | EMPLOYMENT_POSITION      |                          | EMPLOYMENT POS          |      | C,30          |
| 213)            | EQUIPMENT_FIT_TEST_TYPE  |                          | EQUIPFITTEST            |      | C,25          |
| 214)            | EQUIPMENT_IDENTIFICATION | N_NUMBER                 | EQUIP ID NUM            |      | C,35          |
| 215)            | equipment_location       |                          | EQUIP LOC               |      | C,30          |
| 216)            | EQUIP_FIT_TEST_DATE      |                          | EQFITTESTDT             |      | D             |
| 217)            | EXPOSURE_INDICATOR       |                          | EXP IND                 |      | L             |
| 218)            | EYEWEAR_INDICATOR        |                          | EYEWRIN                 |      | L             |
|                 |                          |                          |                         |      |               |

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| 219)            | EYEWEAR_SPECIAL_INDICAS | TOR EYESPIN                              | L,       |
| 220)            | EYE_COLOR_VISION_TEST   | EYECOLORTEST                             | C,25     |
| 221)            | EYE_DEPTH_PERCEPTION    | EYEDEPTHPER                              | C,50     |
| 222)            | EYE_DISTANT_VISION_LEFT | F EYEDISTLFT                             | N, 15    |
| 223)            | EYE_DISTANT_VISION_RIG  | HT EYEDISTRHT                            | N, 15    |
| 224)            | EYE_EXAM_DATE           | EYEEXDATE                                | D        |
| 225)            | EYE_EXAM_TYPE           | EYEXAMTYP                                | C,45     |
| 226)            | EYE_INTRAOCULAR_TENSION | n Eyeinttraocten                         | C,50     |
| 227)            | EYE_NEAR_VISION_LEFT    | EYENEARLFT                               | N, 25    |
| 228)            | EYE_NEAR_VISION_RIGHT   | EYENEARRHT                               | N, 25    |
| 229)            | EYE_NUMBER_OF_CONTACT_  | LENSES EYENUMC                           | N,1      |
| 230)            | EYE_NUMBER_OF_SPECTACLE | es eyenums                               | N, 1     |
|                 | EYE_REFRACTION_LEFT     | EYEREFRACTLFT                            | N,4,     |
| 2<br>232)<br>2  | EYE_REFRACTION_RIGHT    | EYEREFRACTRHT                            | N, 4,    |
|                 | FILED_FOR_BANKRUPTCY    | BANKRUPTCY                               | L        |
| 234)            | FOREIGN_ASSOCIATE_ADDR  | ESS FOR ASSOC ADDRESS                    | C,45     |
| 235)            | FOREIGN_ASSOCIATE_BIRT  | H_DATE FOR ASSOC BIRTH DATE              | D        |
| 236)            | FOREIGN_ASSOCIATE_BIRT  | H_PLACE FOR ASSOC BIRTH PLACE            | C,25     |
| 237)            | FOREIGN_ASSOCIATE_CITI  | ZENSHIP FOR ASSOC CITIZENSHIP            | C,25     |
| 238)            | FOREIGN_ASSOCIATE_NAME  | FOR ASSOC NAME                           | C,25     |
| 239)            | FOREIGN_ASSOCIATE_RELA  | TIONSHIP FOREIGN ASSOC REL               | C, 20    |
| 240)            | FOREIGN_EMPLOYMENT      | FOREIGN EMPL                             | Ľ        |
| 241)            | FOREIGN_FINANCIAL_INTE  | RESTS FOREIGN FIN INT                    | L        |
| 242)            | FOREIGN_GOVERNMENT_CON  | TACT FOREIGN GOVT CONTACT                | L        |
| 243)            | FOREIGN_UNOFFICIAL_TRA  | VEL FOREIGN UNOFF TRAVEL                 | L        |
| 244)            | FOREIGN_VISITOR_ARRIVA  | L_DATE FOREIGN VISITOR ARR DATE          | D        |
| 245)            | FOREIGN_VISITOR_CITIZE  | NSHIP FOREIGN VISITOR CITIZENS           | HIP C,30 |
| 246)            | FOREIGN_VISITOR_COUNTR  | Y FOREIGN VISITOR COUNTRY                | C,30     |
|                 |                         |  |          |

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|   | 247)      | FOREIGN_VISITOR_DEPARTURE_DATE   | FOREIGN VISITOR DEP DATE         | D     |
|---|-----------|----------------------------------|----------------------------------|-------|
|   | 248)      | FOREIGN_VISITOR_DUAL_CITIZENSHIP | FOREIGN VISITOR DUAL CITIZENSHIP | L     |
|   | 249)      | FOREIGN_VISITOR_HOST_NAME        | FOREIGN VISITOR HOST NAME        | C,30  |
|   | 250)      | FOREIGN_VISITOR_HOST_PHONE       | FOREIGN VISITOR HOST PHONE       | C,8   |
|   | 251)      | FOREIGN_VISITOR_INFO_CLEARANCE   | FOREIGN VISITOR INFO CLEARANCE   | L     |
|   | 252)      | FOREIGN_VISITOR_NAME             | FOREIGN VISITOR NAME             | C,45  |
|   | 253)      | FOREIGN_VISITOR_POSITION         | FOREIGN VISITOR POSITION         | C,30  |
|   | 254)      | FOREIGN_VISITOR_UPDATED_BY       | FOREIGN VISITOR UPDATED BY       | C,3   |
|   | 255)      | FOREIGN_VISITOR_VISIT_PURPOSE    | FOREIGN VISITOR VISIT PURPOSE    | C,30  |
|   | 256)      | GARNISHED_WAGES                  | GARNISHED WAGES                  | L     |
|   | 257)      | GAS_FREE_COMPARTMENT_NAME        | GASFRCMPT                        | C,50  |
|   | 258)      | GAS_FREE_COMPARTMENT_NUMBER      | GASFRCMPTNUM                     | N, 12 |
|   | 259)      | GAS_FREE_DESIGNATION_INDICATOR   | GAFRDESIND                       | L     |
|   | 260)      | GAS_FREE_ENGINEER_CERT_DATE      | GASFRCERTDT                      | D     |
|   | 261)      | GAS_FREE_ENGINEER_DIVISION       | GASFRENGDIV                      | C,25  |
|   | 262)      | GAS_FREE_ENGINEER_NAME           | GASFRENGNAM                      | C,25  |
|   | 263)      | GAS_FREE_ENTRY_TYPE              | GASFRENTTYP                      | C,50  |
|   | 264)      | GAS_FREE_EQUIPMENT_NAME          | GASFREQUPNAM                     | C,50  |
|   | 265)      | GAS_FREE_EQUIPMENT_SERIAL_NUMBER | GASFREQUIPSER                    | N, 15 |
| , | 266)      | GAS_FREE_TEST_ACTIONS            | GASFRTESACT                      | C,12  |
| • | 267)      | GAS_FREE_TEST_DATE               | GASFREEDT                        | D     |
|   | 268)      | GAS_FREE_TEST_EXPIRATION_DATE    | GASFREXPDT                       | D     |
|   | 269)      | GAS_FREE_TEST_EXPIRATION_TIME    | GASFREXPTIM                      | N, 4  |
|   |           | GAS_FREE_TEST_INSTRUCTIONS       | GASFRTESTINST                    | C,12  |
| , | 0<br>271) | GAS_FREE_TEST_TIME               | GASFREETIME                      | T     |
|   | 272)      | GAS_FREE_TEST_TYPE               | GASFRTESTTYP                     | C,25  |
|   | 273)      | GAS_FREE_WORK_TYPE               | GASFRWKTYP                       | C,50  |
|   | 274)      | HAZARD_COMPARTMENT_DIVISION      | HAZCMPTDIV                       | C,25  |
|   |           |                                  |                                  |       |

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| 275)            | HAZARD_COMPARTMENT_FUNCT | NOI     | HAZCMPTFUN                   | (    | c <b>,</b> 79 |
| 273)            | HAZARD_COMPARTMENT_NAME  |         | HAZCMPT                      | (    | C, 45         |
| 277)            | HAZARD_COMPARTMENT_NUMBE | R       | HAZCMPTNUM                   | 1    | N, 12         |
| 278)            | HAZARD_COMPARTMENT_WORKC | ENTER   | HAZCMPTWC                    |      | C,10          |
| 279)            | HAZARD_CSMP_ENTRY_INDICA | TOR     | HAZCSMPIND                   | 1    | L             |
| 280)            | HAZARD_CSMP_NUMBER       |         | HAZCSMPNUM                   | 1    | N, 10         |
| 281)            | HAZARD_IDENTIFICATION_CO | DE      | HAZID                        | 1    | N, 2          |
| 282)            | HAZARD_INSPECTION_DATE   |         | HAZINSPDT                    | 1    | D             |
| 283)            | HAZARD_INSPECTOR_NAME    |         | HAZINSPNAM                   | (    | C,25          |
| 284)            | HAZARD_MISHAP_PROBABILIT | Y_CODE  | HAZMISPROB                   | •    | C,1           |
| 285)            | HAZARD_REPORT_DATE       |         | HAZREPDAT                    | 1    | D             |
| 286)            | HAZARD_REPORT_DEPARTMENT | CODE    | HAZREPDEP                    | •    | C,4           |
| 287)            | HAZARD_REPORT_LOCATION   |         | HAZREPLOC                    | •    | C,50          |
| 288)            | HAZARD_REPORT_ORIGINATOR | NAME    | HAZREPORIG                   | •    | C,50          |
| 289)            | HAZARD_REPORT_TIME       |         | HAZREPTIM                    | 1    | N, 4          |
| 290)            | HAZARD_RISK_ASSESSMENT_C | CODE    | HAZRAC                       | )    | N, 1          |
| 291)            | HAZARD_SEQUENCE_NUMBER   |         | HAZNUM                       | :    | N,5           |
| 292)            | HAZARD_SEVERITY_CATEGORY | _CODE   | HAZSEVCAT                    | ;    | N, 1          |
| 293)            | HAZMAT_CHEMICAL_NAME     |         | HAZCHEMNAM                   | 1    | C,50          |
| 294)            | HAZMAT_CHRONIC_HAZARD_IN | 1D      | HAZCRON                      | ;    | L             |
| 295)            | HAZMAT_CONTAINER_SIZE    |         | HAZCNTRSIZ                   |      | C,25          |
| 296)            | HAZMAT_CONTAINER_TYPE    |         | HAZCONTRTYP                  |      | C, 25         |
| 297)            | HAZMAT_DEPT_CODE         |         | HAZDEPT                      |      | C,5           |
| 298)            | HAZMAT_ESTIMATED_USAGE   |         | HAZESTUSG                    |      | C,25          |
| 299)            | HAZMAT_ITEM_NUMBER       |         | HAZITEMNBR                   | ;    | N, 5          |
| 300)            | HAZMAT_LOCKER_LOCATION   |         | HAZLOC                       |      | C,75          |
| 301)            | HAZMAT_MANUFACTURER_DESC | CRIPTIO | n hazmanuf                   |      | C,75          |
| 302)            | HAZMAT_METHOD_OF_APPLICA | ATION   | HAZAPPL                      |      | C,50          |

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| 303)            | HAZMAT_NSN              |  | HAZNSN        |          | N, 25 |
| 304)            | HAZMAT_QUANTITY_ON_HAND |  | нагоон        |          | N, 3  |
| 305)            | HAZMAT_SHELF_LIFE       |  | HAZSHELF      |          | N, 2  |
| 306)            | HAZMAT_SPECIFICATION_NO | JMBER                                    | HAZSPEC       |          | N, 25 |
| 307)            | HAZMAT_TRADE_NAME       |  | HAZTRANAM     |          | c,50  |
| 308)            | HEARING_90_DAY_FOLLWUP  | EXAM_DATE                                | AUDIOFOLEXDT  |          | D     |
|                 | HEARING_AUDIOGRAM_COMMI | ents                                     | AUDIOCMNT     |          | C,12  |
| 0<br>310)       | HEARING_AUDIOGRAM_INDIC | CATOR                                    | AUDIOGRMIND   |          | L     |
| 311)            | HEARING_AUDIOGRAM_LAST  | DATE                                     | AUDIODT       |          | D     |
| 312)            | HEARING_AUDIOGRAM_TYPE  |  | AUDIOTYPE     |          | C,25  |
| 313)            | HEARING_AUDIOGRAM_TYPE  | _DUE_DATE                                | AUDIODUDT     |          | D     |
| 314)            | HEARING_COMPARTMENT_LO  | CATION                                   | HEARCMPTLOC   |          | N, 10 |
| 315)            | HEARING_DOUBLE_PROTECT: | ION_IND                                  | DBLPROTECT    |          | L     |
| 316)            | HEARING_EAR_PLUG_ISSUE  | _DATE                                    | EARPLUGDT     |          | Ď     |
| 317)            | HEARING_EAR_PLUG_SIZE_  | LEFT                                     | EARPLUGLFT    |          | C, 2  |
| 318)            | HEARING_EAR_PLUG_SIZE_  | RIGHT                                    | EARPLUGRHT    |          | C,2   |
| 319)            | HEARING_EAR_PLUG_TYPE   |  | EARPLUGTYPE   |          | C,20  |
| 320)            | HEARING_NOISE_SOURCE_C  | ODE                                      | HEARSRC       |          | N, 2  |
| 321)            | HEARING_SURVEY_COMPART  | MENT                                     | HEARSURCOMP   |          | C,25  |
| 322)            | HEARING_SURVEY_INDICATE | OR                                       | HEARIND       |          | L     |
| 323)            | HEARING_SURVEY_LAST_DA  | TE.                                      | HEARSURVLD    |          | D     |
| 324)            | HEARING_SURVEY_NAME     |  | HEARSURVNAM   |          | C,25  |
| 325)            | HEARING_SURVEY_NOISE_L  | EVEL                                     | HEARNOISLVL   |          | N,3   |
| 326)            | HEARING_SURVEY_ORGANIZ  | ATION                                    | HEARSURVORG   |          | C,50  |
| 327)            | HEAT_EXPOSURE_DATE      |  | HEXPDT        |          | D     |
| 328)            | HEAT_EXPOSURE_TIME      |  | HEXPTIME      |          | T     |
| 329)            | HEAT_EXP_PHEL_COMMENTS  |  | HEAT EXP PHEL | CMNT     | C,50  |
| 330)<br>1       | HEAT_EXP_PHEL_EXPOSURE  | _TIME                                    | HEAT EXP PHEL | TIME     | N, 2, |

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| 331)            | HEAT_EXP_PHEL_OPERATOR  | NUMBER H               | EAT EXP  | PHEL OPER  | NBR  | N, 1    |
| 332)            | HEAT_EXP_PHEL_RECOVERY  | _TIME H                | EAT EXP  | PHEL RCVR  | TIME | T       |
| 333)            | HEAT_STRESS_EQUIPMENT_  | TYPE H                 | EATSTRE  | TYP        |      | C,50    |
| 334)            | HEAT_STRESS_EQUIP_CAL_  | DATE H                 | ESTREQUA | LDT        |      | מ       |
| 335)            | HEAT_STRESS_EQUIP_RECA  | L_DATE H               | ESTREQCA | LDU        |      | D       |
| 336)            | HEAT_STRESS_EQUIP_RECA  | L_IND H                | ESTRRECA | LIND       |      | L       |
| 337)            | HEAT_STRESS_EQUIP_TYPE  | _QUANTITY H            | eatstre( | QTY        |      | C,25    |
| 338)            | HEAT_SURVEY_COMMENTS    | н                      | EAT SURV | CMT        |      | C,75    |
| 339)            | HEAT_SURVEY_DRY_BULB_T  | emp h                  | EAT SURV | DBT        |      | N,5     |
| 340)            | HEAT_SURVEY_FUEL_PRESE  | NT_IND H               | EAT SURV | FUEL IND   |      | L       |
| 341)            | HEAT_SURVEY_GLOBE_TEMP  | н                      | EAT SURV | GLOBE TEM  | IP   | N,5     |
| 342)            | HEAT_SURVEY_OUT_DRY_BU  | LB_TEMP H              | EAT SURV | ODBT       |      | N, 5    |
| 343)            | HEAT_SURVEY_OUT_WET_BU  | LB_TEMP H              | EAT SURV | OWBT       |      | N, 5    |
| 344)            | HEAT_SURVEY_SAMPLE_DATE | в н                    | EAT SUR  | SMPL DATE  |      | D       |
| 345)            | HEAT_SURVEY_SAMPLE_LOC  | ATION H                | EAT SURV | SMPL LOC   |      | C,25    |
| 346)            | HEAT_SURVEY_SAMPLE_TIM  | е н                    | EAT SURV | SMPL TIME  | }    | T       |
| 347)            | HEAT_SURVEY_WET_BULB_T  | EMP H                  | EAT SURV | WBT        |      | N, 5    |
| 348)            | HEAT_SURVEY_WET_BULB_T  | EMP_INDEX H            | EAT SURV | WBT IX     |      | N, 6    |
| 349)            | ILLEGAL_SUBSTANCE_PURC  | HASE/PROD I            | LLEGAL S | SUBS PURCH |      | L       |
| 350)            | ILLEGAL_SUBSTANCE_USE   | I                      | LLEGAL S | SUBS USE   |      | L       |
| 351)            | IMMUNIZATION_BATCH_NUM  | BER I                  | MMUNBATO | HNMBR      |      | N,10    |
| 352)            | IMMUNIZATION_CREW_ALLE  | RGY_IND I              | MMUNCRW! | LRG        |      | C,50    |
| 353)            | IMMUNIZATION_DATE       | ı                      | MMUN DAT | e.         |      | D       |
| 354)            | IMMUNIZATION_DOSAGE     | I                      | mmundose | 3          |      | C,25    |
| 355)            | IMMUNIZATION_DUE_DATE   | I                      | MMUN DUE | DATE       |      | ם       |
| 356)            | IMMUNIZATION_INDICATOR  | I                      | MMUN INI | )          |      | L       |
| 357)            | IMMUNIZATION_PROVIDER_  | NAME I                 | MMUNPROV | NAM        |      | C,45    |
| 358)            | IMMUNIZATION_TYPE       | I                      | MMUN TYE | E          |      | C,25    |
|                 |                         |                        |          |            |      |         |

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| 359)            | INDIVIDUAL_CLEARANCE               | INDIV CLEAR                            | c,13     |
| 360)            | INDIVIDUAL_ESCORT_REQUIF           | ED INDIV ESCORT                        | L        |
| 361)            | INDIVIDUAL_LAST_UPDATED_           | BY INDIV LAST UPD BY                   | C,3      |
| 362)            | INDIVIDUAL_LAST_UPDATED_           | DATE INDIV LAST UPD DATE               | D D      |
| 363)            | INDIVIDUAL_NAME                    | INDIVIDUAL_NAME                        | C,45     |
| 364)            | INDIVIDUAL_ORGANIZATION            | INDIV ORG                              | C,25     |
| 365)            | INDIVIDUAL_ORGANIZATION_           | PHONE INDIV ORG PHONE                  | C,12     |
| 366)            | INDIVIDUAL_SOCIAL_SECURI           | TY_NUM SSN                             | C,11     |
| 367)            | INDIVIDUAL_SOCIAL_SECURI           | TY_NUMBR SSN                           | C,11     |
| 368)            | INFORMATION_DISCLOSURE_T           | YPE INFO DISCLOSURE TYPE               | PE C,20  |
| 369)            | INFO_CLEARANCE_AUTHORITY           | NAME INFO CLEAR AUTH NAM               | 1E C,30  |
| 370)            | INJURY_CIRCUMSTANCES_TEX           | T INJCIRC                              | C,75     |
| 371)            | INJURY_DATE                        | INJDAT                                 | D        |
| 372)<br>0       | INJURY_DIAGNOSIS                   | INJDIAG                                | C,12     |
| 373)            | INJURY_DISABILITY                  | INJDISABL                              | L        |
| 374)            | INJURY_FIRST_SEEN_DATE             | INJFIRDAT                              | D        |
| 375)            | INJURY_FIRST_SEEN_TIME             | INJFIRTIM                              | T        |
| 376)<br>0       | INJURY_LOCATION                    | INJLOC                                 | C,12     |
| -               | INJURY_LOCATION_OF ACCID           | ENT ACC LOC                            | C,25     |
| 378)            | INJURY_MED_DEPT_NAME               | INJMEDNAM                              | C,50     |
| 379)            | INJURY_MISHAP_REPORT_INI           | INJMISHAP                              | L        |
| 380)<br>0       | INJURY_PROGNOSIS                   | INJPROG                                | C,12     |
| 381)            | INJURY_REPORT_DATE                 | INJREPDAT                              | D        |
| 382)            | <pre>INJURY_REPORT_INDICATOR</pre> | INJREPIND                              | L        |
| 383)            | INJURY_SEQUENCE_NUMBER             | INJSEQNUM                              | N, 5     |
| 384)            | INJURY_START_TIME                  | INJSTRTIM                              | T        |
| 385)            | INJURY_SUBJECT_CONDITION           | _CODE INJSUBCON                        | и, э     |
| 386)<br>0       | INJURY_TREATMENT                   | INJTRT                                 | C,12     |

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| 387)            | INJURY_WITNESS_DEPARTM  | ENT      | INJWITDEP                    | C,10     |
| 388)            | INJURY_WITNESS_DIVISION | N        | INJWITDIV                    | C,25     |
| 389)            | INJURY_WITNESS_NAME     |          | INJWITNAM                    | C,45     |
| 390)            | INVENTORY_DATE          |          | INVDATE                      | D        |
| 391)            | INVENTORY_LOCATION      |          | INVLOC                       | C,50     |
| 392)            | INVENTORY_TYPE          |          | INVTYP                       | C,25     |
| 393)            | INV_ITEM_ALLOWANCE      |          | INVALW                       | N, 4     |
| 394)            | INV_ITEM_EXPIRATION_DAY | TE       | INVEXPDT                     | D        |
| 395)            | INV_ITEM_FIRST_INSPECT  | ION_DATE | INVFIRINSP                   | D        |
| 396)            | INV_ITEM_INSPECTION_CO  | DE       | INVINSPCODE                  | C,1      |
| 397)            | INV_ITEM_INSPECTION_DA  | TE       | INVITINSPDT                  | D        |
| 398)            | INV_ITEM_INSPECTION_DU  | E_DATE   | INVINSPDU                    | D        |
| 399)            | INV_ITEM_LOCAL_MANUFAC  | TURER    | INVLOCMANF                   | C,50     |
| 400)            | INV_ITEM_LOT_NUMBER     |          | INVLOTNUM                    | N,7      |
| 401)            | INV_ITEM_MANUFACTURE_D  | ATE      | INVMANFDT                    | D        |
| 402)            | INV_ITEM_NATIONAL_STOC  | K_NUMBER | INVNSN                       | N, 15    |
| 403)            | INV_ITEM_NOMENCLATURE   |          | INVITMNOM                    | C,50     |
| 404)            | INV_ITEM_QUANTITY_ON_H  | AND      | INVQOH                       | N, 4     |
| 405)            | INV_ITEM_SHELF_LIFE     |          | INVSHELF                     | и, з     |
| 406)            | INV_ITEM_TYPE           |          | INVITMTYP                    | C,25     |
| 407)            | INV_ITEM_UNIT_OF_ISSUE  |          | INVUNIT ISS                  | C,25     |
| 408)            | KEY/LOCK_LOCATION       |          | KEY LOCK LOC                 | C,20     |
| 409)            | KEY/LOCK_SERIAL_NUMBER  |          | KEY LOCK SERIAL NUM          | C,15     |
| 410)            | KEY/LOCK_TYPE           |          | KEY LOCK TYPE                | C,4      |
| 411)            | KEY_COPY_NUMBER         |          | KEYCOPYNUM                   | N, 4     |
| 412)            | KEY_CUSTODIAN_NAME      |          | KEYCUSTNAM                   | C,50     |
| 413)            | KEY_ISSUED_TO_NAME      |          | KEYISSNAM                    | C,50     |
| 414)            | KEY_ISSUE_DATE          |          | KEYISSDAT                    | D        |

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| 415)             | KEY_LOCKER_NUMBER        | KEYI                           | KRNUM         | N, 4     |
| 416)             | KEY_RETURN_DATE          | KEYF                           | RETDAT        | D        |
| 417)             | KEY_SERIAL_NUMBER        | KEY                            | SER NUM       | C,10     |
|                  | LAB_TEST_COMMENTS        | LABI                           | PESTCMNT      | C,12     |
| 0<br>419)        | LAB_TEST_DATE            | LAB                            | RESTDAT       | D        |
| 420)             | LAB_TEST_RESULT          | LAB                            | PESTRESULT    | C,50     |
| 421)             | LAB_TEST_SEQUENCE_NUMBER | LABS                           | SEQNBR        | N, 6     |
| 422)             | LAB_TEST_TYPE            | LAB                            | FESTTYPE      | C, 45    |
| 423)             | LENS_TYPE                | EYEI                           | LNTY          | C,1      |
| 424)             | MEDICAL_CHIT_DIAGNOSIS   | MEDO                           | CHTDIAG       | C,70     |
| 425)             | MEDICAL_CHIT_EFFECTIVE_D | ATE MED                        | CHITEFFDAT    | D        |
| 426)             | MEDICAL_CHIT_EXPIRATION_ | DATE MED                       | CHTEXPDAT     | D        |
| 427)             | MEDICAL_CHIT_ISSUING_ACT | IVITY MED                      | CHTISSACTVTY  | C,40     |
| 428)             | MEDICAL_CHIT_REASON      | MEDO                           | CHTRSN        | C,70     |
| 429)             | MEDICAL_CHIT_TO_ACTIVITY | MED                            | CHTTOACTVY    | C,40     |
| 430)             | MEDICAL_CHIT_TYPE        | MED                            | CHITTYPE      | C,25     |
| 431)             | MEDICAL_CONSULT_DATE     | MED                            | CONSDAT       | D        |
|                  | MEDICAL_CONSULT_DIAGNOSI | S MED                          | CONSDIAG      | C,12     |
| 0<br>433)        | MEDICAL_CONSULT_FOLLOW_U | P_IND MED                      | CONSFOLLWIND  | L        |
| 434)             | MEDICAL_CONSULT_LOCATION | MED(                           | CONSLOC       | C,75     |
|                  | MEDICAL_CONSULT_PREVIOUS | RESULTS MED                    | CONSPREVRSLT  | C,12     |
|                  | MEDICAL_CONSULT_PROVIDER | NAME EXT                       | PRONAM        | C,12     |
| 0<br>437)        | MEDICAL_CONSULT_PROVIDER | NUM MED                        | CONSPROVNUM   | N, 15    |
| 438)             | MEDICAL_CONSULT_PROVIDER | NUMBR MED                      | CONSPROVNUM   | N, 15    |
| 439)             | MEDICAL_CONSULT_REASON   | MED                            | CONSREASN     | C,79     |
| 440)             | MEDICAL_CONSULT_REFERRAL | _TO MED                        | CONSREFTO     | C,50     |
| 441)             | MEDICAL_CONSULT_REPORT_F | RECEIVED MED                   | CONSREPTRECVD | L        |
| 442)             | MEDICAL_CONSULT_TIME     | MED                            | CONSTIM       | T        |

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| 443)            | MEDICAL_CONSULT_TYPE     | MED            | CONSTYPE         | C        | C,1      |
| 444)            | MEDICAL_DEPT_LOCATION    | MEDI           | DEPLOCA          |          | C,25     |
| 445)            | MEDICAL_DEPT_PHONE       | MED            | DEPPHON          |          | N, 7     |
| 446)            | MEDICAL_DEPT_REPRESENTAT | CIVE_NAME MED  | SENIORN <i>I</i> | AME      | C,50     |
| 447)            | MEDICAL_DEPT_REPRESENTAT | rive_ssn med   | DEPTREPS         | ssn      | N, 15    |
| 448)            | MEDICAL_ID_TAG_INDICATOR | R MED          | ID TAG           | IND      | L        |
| 449)            | MEDICAL_ID_TAG_ISSUE_DAT | E MED          | ID TAG           | ISS DATE | D        |
| 450)            | MEDICAL_ID_TAG_SIGNATURE | _IND MED       | ID SIG           |          | L        |
| 451)            | MEDICAL_MEMBER_NAME      | MED            | MBRNAM           |          | C,45     |
| 452)            | MEDICAL_MEMBER_SSN       | MED            | MBRSSN           |          | N, 12    |
| 453)            | MEDICAL_RADIATION_SURVE  | LL_IND MED     | RADSURVI         | EILIND   | L        |
| 454)            | MEDICAL_RAD_HEALTH_OFFIC | CER_NAME MED   | RADHEALI         | NAM      | C,50     |
| 455)            | MEDICAL_RAD_HEALTH_OFFIC | CER_SSN MED    | RADHEALS         | ssn      | N, 15    |
| 456)            | MEDICAL_STATUS_INDICATOR | R MED          | STATUS           |          | L        |
| 457)            | MEDICINAL_AUTHORIZATION  | _REQUIRED MED  | Authreqi         | D        | L        |
| 458)            | MEDICINAL_DATE           | MED            | DAT              |          | D        |
| 459)            | MEDICINAL_ISSUE_DATE     | MED            | DAT              |          | D        |
| 460)            | MEDICINAL_ISSUE_TIME     | MED            | TIM              |          | T        |
| 461)            | MEDICINAL_NATL_STOCK_NB  | R MED          | NSN              |          | C,13     |
| 462)            | MEDICINAL_NSN            | MED            | NSN              |          | C,13     |
| 463)            | MEDICINAL_NSN_LOCATION   | MED            | NSNLOC           |          | C,16     |
| 464)            | MEDICINAL_PATIENT_NAME   | MED            | PATIENT          | MAN      | C,45     |
| 465)            | MEDICINAL_PRESCRIPTION_  | NUMBER MED     | SCRIPNU          | м        | N, 7     |
| 466)            | MEDICINAL_QUANTITY_ISSU  | ED MED         | QTYISSU          | E        | C,50     |
| 467)            | MEDICINAL_TIME           | MED            | MIT              |          | T        |
| 468)            | MED_SURVEIL_AUTH_COMMAN  | D MED          | SURAUTH          | CMD      | C,50     |
| 469)            | MED_SURVEIL_COMMAND_DUR  | ATION MED      | SURFMDU          | R        | C,50     |
| 470)            | MED_SURVEIL_COMMAND_NAM  | E MED          | SURCMON          | AM.      | c,75     |

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| 471)            | MED_SURVEIL_COMMAND_UNI  | T_ID_CODE                | MEDSURUIC               | N, 6     |
| 472)            | MED_SURVEIL_EVAL_AUTHOR  | RITY_NAME                | MEDSURAUTHNAM           | C,50     |
| 473)            | MED_SURVEIL_EVAL_COMMEN  | ITS                      | MEDSUREVALCMNT          | C,12     |
| 0<br>474)       | MED_SURVEIL_EVAL_DATE    |                          | MEDSURVDT               | D        |
| 475)            | MED_SURVEIL_EVAL_INDICA  | ATOR                     | MEDSURVEVAL             | L        |
| 476)            | MED_SURVEIL_JOB_DESCRIE  | PTION                    | MEDSURJOB               | C,12     |
| _               | MED_SURVEIL_JOB_PROCESS  | 3                        | MEDSURPRO               | C,12     |
| 0<br>478)       | MED_SURVEIL_PROGRAM_INI  | CATOR                    | MEDSURIND               | L        |
| 479)            | MED_SURVEIL_TYPE         |                          | MEDSURTYP               | C,50     |
| 480)            | MED_SURV_AUTHORITY_COM   | <b>IAN</b> D             | MEDSURAUTHCMD           | C,50     |
| 481)            | MED_SURV_COMMAND_DURATE  | ON                       | MEDSURFMDUR             | C,50     |
| 482)            | MED_SURV_COMMAND_NAME    |                          | MEDSURCMDNAM            | c,75     |
| 483)            | MED_SURV_COMMAND_UNIT_   | ID_CODE                  | MEDSURUIC               | N, 6     |
| 484)            | MED_SURV_EVALUATION_COM  | MENTS                    | MEDSUREVALCMNT          | C,12     |
| 0<br>485)       | MED_SURV_EVALUATION_DAY  | re                       | MEDSURVDT               | D        |
| 486)            | MED_SURV_EVALUATION_IN   | CICATOR                  | MEDSURVEVAL             | L        |
| 487)            | MED_SURV_EVAL_AUTHORIT   | Y_NAME                   | MEDSURAUTHNAM           | C,50     |
| 488)            | MED_SURV_JOB_DESCRIPTION | М                        | MEDSURJOB               | C,12     |
| 0<br>489)<br>0  | MED_SURV_JOB_PROCESS     |                          | MEDSURPRO               | C,12     |
| •               | MED_SURV_PROGRAM_INDICA  | ATOR                     | MEDSURIND               | L        |
| 491)            | MED_SURV_TYPE            |                          | MEDSURTYP               | C,50     |
| 492)            | MEMBER_ALLERGY_INDICATO  | OR                       | MEMALRGYIND             | L        |
| 493)            | MEMBER_BODY_FAT_PERCENT  | r                        | MEMBODYFAT              | N, 2     |
| 494)            | MEMBER_CLIENT_NUMBER     |                          | MBRCLINUM               | N, 7     |
| 495)            | MEMBER_DEPARTMENT_ASSI   | GNED                     | MBRDEPT                 | C,15     |
| 496)            | MEMBER_DIVISION_ASSIGN   | ED                       | MBR DIV                 | C,15     |
| 497)            | MEMBER_FIRST_NAME        |                          | MBRFIRNAM               | C,25     |
| 498)<br>1       | MEMBER_HEIGHT            |                          | MEMHT                   | и, 3,    |

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| 499)                                  | MEMBER_LAST_NAME         | MBRLASI                                     | NAM          | C,25     |
| 500)                                  | MEMBER_MEDICAL_SURVEILI  | ANCE_IND MEMMEDS                            | BURV         | L        |
| 501)                                  | MEMBER_RANK              | MBRRANI                                     | Κ.           | C,4      |
| 502)                                  | MEMBER_RATE              | MBRRATI                                     | S            | C,25     |
| 503)                                  | MEMBER_RH_ABO_BLOOD_TYPE | PE MEMBLOO                                  | OTTYP        | C,25     |
| 504)                                  | MEMBER_SOCIAL_SECURITY_  | NUMBER MBRSSN                               |              | N, 12    |
| 505)<br>1                             | MEMBER_WEIGHT            | MEMWGT                                      |              | N, 4,    |
| -                                     | MEMBER_WEIGHT_CONTROL_E  | PROGRAM MEMWGTO                             | CONTRL       | L        |
| 507)                                  | MEMBER_WORKCENTER        | MBRWKC                                      | rr           | C,6      |
| 508)                                  | MEMBER_WORKCENTER_ASSIG  | ened mbrwkc                                 | ГR           | C,5      |
| 509)                                  | MEMBER_WORKCENTER_PHONE  | _number mbrphoi                             | N            | N,5      |
| 510)                                  | MENTAL_HEALTH_TREATMENT  | MENTAL MENTAL                               | HEALTH TREAT | L        |
| 511)                                  | MENTAL_PROBLEMS          | MENTAL                                      | PROBS        | L        |
| 512)                                  | MISCONDUCT_CODE          | MISCON                                      |              | N, 1     |
| 513)                                  | MISHAP_CATEGORY          | MISCAT                                      |              | C,45     |
| 51 <b>4</b> )                         | MISHAP_CAUSE             | MISCAU                                      | SE           | C,12     |
|                                       | MISHAP_DATE              | MISDAT                                      |              | D        |
| 516)                                  | MISHAP_DEPARTMENT        | MISDEP                                      |              | C,4      |
| 517)<br>0                             | MISHAP_DESCRIPTION       | MISDES                                      | c            | C,12     |
| · · · · · · · · · · · · · · · · · · · | MISHAP_DIVISION          | MISDIV                                      |              | C,6      |
| 519)                                  | MISHAP_EXTERNAL_REPORT   | _IND MISEXT                                 | REP          | L        |
| 520)                                  | MISHAP_EXTERNAL_REPORT   | NUMBER MISEXT                               | REPNUM       | N, 12    |
| 521)<br>0                             | MISHAP_LOCATION          | MISLOC                                      |              | C,12     |
| •                                     | MISHAP_PHOTO_INDICATOR   | мізрно                                      | TO           | L        |
| 523)                                  | MISHAP_REPORT_DATE       | MISREP                                      | DAT          | D        |
| 524)                                  | MISHAP_REPORT_INDICATO   | R MISREP                                    | IND          | L        |
| 525)                                  | MISHAP_REPORT_OFFICER    | MISREP                                      | off          | C,50     |
| 526)                                  | MISHAP_REPORT_OFFICER_   | MISREP                                      | OFF          | C,50     |

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| 527)            | MISHAP_SEQUENCE_NUMBER  | 1                        | MISSEQ   |          |           |      | N, 5  |
| 528)            | MISHAP_SUPERVISOR_NAME  | 1                        | MISSUPNA | M        |           |      | C,25  |
| 529)            | MISHAP_TIME             | 1                        | MISTIM   |          |           |      | N, 4  |
| 530)            | MISHAP_WITNESS_DIVISION | 1                        | MISWITDI | v        |           |      | C,6   |
| 531)            | MISHAP_WITNESS_NAME     | 1                        | MISWITNA | M        |           |      | C,25  |
| 532)            | MISHAP_WITNESS_NUMBER   | 1                        | MISWITNU | M        |           |      | N, 2  |
| 533)            | MOTOR_VEH_COORDINATOR_N | IAME I                   | MVEHCOOR | DNAM     |           |      | C,25  |
| 534)            | MOTOR_VEH_LICENSE_INDIC | ATOR                     | MVEHLICI | ND       |           |      | L     |
| 535)            | MOTOR_VEH_SAFETY_COURSE | DATE                     | MVEHSAFC | RSDT     |           |      | D     |
| 536)            | MOTOR_VEH_SAFETY_COURSE | _DUE_DATE                | MVEHSAFC | RSDU     |           |      | D     |
| 537)            | MOTOR_VEH_SAFETY_COURSE | _IND                     | MVEHSAFC | RSIND    |           |      | L     |
| 538)            | MOTOR_VEH_SAFETY_COURSE | NAME                     | mvehsafn | AM       |           |      | C,50  |
| 539)            | MOTOR_VEH_TYPE          | :                        | MVEHTYP  |          |           |      | C,45  |
| 540)            | NONDISCLOSURE_ACCEPTANC | E_COMMAND                | NONDISC  | ACCEPT ( | COMMAND   |      | C,30  |
| 541)            | NONDISCLOSURE_ACCEPTANC | E_DATE                   | NONDISC  | ACCEPT 1 | DATE      |      | D     |
| 542)            | NONDISCLOSURE_ACCEPTANC | E_NAME                   | NONDISC  | ACCEPT 1 | NAME      |      | C,30  |
| 543)            | NONDISCLOSURE_ACCEPTANC | E_SIGN                   | NONDISC  | ACCEPT   | SIGN      |      | L     |
| 544)            | NONDISCLOSURE_DEBRIEF_W | ITNESS                   | NONDISC  | SEC DEB  | RIEF WITN | ESS  | C,30  |
| 545)            | NONDISCLOSURE_MEMBER_CO | MMAND                    | NONDISC  | MBR COM  | MAND      |      | C,30  |
| 546)            | NONDISCLOSURE_MEMBER_SI | GNATURE                  | NONDISC  | MBR SIG  | NATURE    |      | L     |
| 547)            | NONDISCLOSURE_SECURITY_ | DEBRIEF                  | NONDISC  | SEC DEB  | RIEF      |      | r     |
| 548)            | NONDISCLOSURE_SEC_DEBRI | EF_DATE                  | NONDISC  | SEC DEB  | RIEF DATE |      | D     |
| 549)            | NONDISCLOSURE_WITNESS_C | COMMAND                  | NONDISC  | WITNESS  | COMMAND   |      | C,30  |
| 550)            | NONDISCLOSURE_WITNESS_D | ATE                      | NONDISC  | WITNESS  | DATE      |      | D     |
| 551)            | NONDISCLOSURE_WITNESS_N | IAME                     | NONDISC  | WITNESS  | NAME      |      | C,30  |
| 552)            | NONDISCLOSURE_WITNESS_S | SIGNATURE                | NONDISC  | WITNESS  | SIGNATUR  | E    | L     |
| 553)            | NONDISC_SEC_DEBRIEF_WIT | NESS_SIGN                | NONDISC  | SEC DBR  | F WIT SIG | N    | L     |
| 554)            | NUMBER_OF_DAYS_LOST     |                          | LOSSDAY  |          |           |      | и, з  |

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| <b>555</b> )    | NUMBER_OF_ROOMMATES      | N            | JM OF RO | OMMATES    |      | C,2      |
| 556)            | OFF_DUTY_COORDINATOR_NAM | ie co        | OORDNAM  |            |      | C,25     |
| 557)            | OFF_DUTY_SAFETY_TYPE     | OI           | FFDTYTYP | •          |      | С,3      |
| 558)            | OFF_DUTY_TRAINING_TOPIC  | Oi           | FFDTYTRN | GTOP       |      | C,50     |
| 559)            | OFF_DUTY_TRAINING_TOPIC_ | DATE O       | FFDTYTRN | GTOPDT     |      | D        |
| 560)            | OFF_DUTY_TYPE_TRAINING_I | IND OI       | FFDTYTRN | GIND       |      | L        |
| 561)            | ORGANIZATION_CITY        | O            | RG CITY  |            |      | C,25     |
| 562)            | ORGANIZATION_FROM_DATE   | OI           | RG FROM  | DATE       |      | D        |
| 563)            | ORGANIZATION_NAME        | OI           | RG NAME  |            |      | C,30     |
| 564)            | ORGANIZATION_STATE       | OI           | RG STATE | }          |      | C,2      |
| 565)            | ORGANIZATION_STREET_ADDR | RESS OF      | RG STREE | T          |      | C,25     |
| 566)            | ORGANIZATION_TO_DATE     | 01           | rg to da | TE         |      | D        |
| 567)            | ORGANIZATION_TYPE        | OI           | RG TYPE  |            |      | C,15     |
| 568)            | OTHER_NAMES_USED         | 0            | THER NAM | Œ          |      | C,25     |
| 569)            | PERSONAL_PROTECTIVE_EQUI | P_CODE PI    | ersproec | PCD        |      | C,1      |
| 570)            | PERSONAL_PROTECTIVE_EQUI | r_ind h      | Azperspr | OT         |      | L        |
| 571)            | PEST_CONTOL_TYPE_OF_PEST | r Pi         | EST CON  | TYPE PEST  |      | C,25     |
| 572)            | PEST_CONTROL_ACTION      | P            | ESTACTIO | N          |      | C,25     |
| 573)            | PEST_CONTROL_COMMENTS    | P            | EST CON  | CMNT       |      | C,50     |
| 574)            | PEST_CONTROL_DATE        | P            | EST CON  | DATE       |      | D        |
| 575)            | PEST_CONTROL_FOLLOW_UP_D | ATE P        | EST CON  | FOL DATE   |      | D        |
| 576)            | PEST_CONTROL_OPERATOR_IN | NITIAL P     | EST CON  | OPER INIT  |      | C,3      |
| 577)            | PEST_CONTROL_PESTICIDE_A | AMOUNT P     | EST CON  | PESTICIDE  | AMT  | N, 4     |
| 578)            | PEST_CONTROL_PESTICIDE_1 | TYPE P       | EST CON  | PESTICIDE  | TYPE | C,10     |
| 579)            | PEST_CONTROL_PEST_COUNT  | P            | EST CON  | COUNT      |      | N, 4     |
| 580)            | PEST_CONTROL_SIGNATURE   | P            | EST CON  | SIG        |      | C,25     |
| 581)            | PEST_CONTROL_SPACE_SPRAY | CED P        | EST CON  | SPACE SPRA | Y    | C, 25    |
| 582)            | PHYSICAL_CLINICAL_EVALUA | ATION_TYP P  | HYCLINEV | ALTYP      |      | N, 2     |

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|  | PHYSICAL_EXAM_COMMENTS    |           | PHYSC  | OMNT | •       |          |  | C,12 |
| 0<br>584)  | PHYSICAL_EXAM_DATE        |           | PHYEX  | DAT  |         |          |  | D    |
| 585)   | PHYSICAL_EXAM_DUE_DATE    |           | PHYEX  | שם   |         |          |  | D    |
| 586)   | PHYSICAL_EXAM_FACILITY    |           | PHYSF. | ACIL | ITY     |          |  | C,78 |
| 587)   | PHYSICAL_EXAM_INDICATOR   |           | PHYEX  | IND  |         |          |  | L    |
|  | PHYSICAL_EXAM_RECOMMENDA  | TIONS     | PHYSR  | EX   |         |          |  | C,12 |
| 0<br>589)  | PHYSICAL_EXAM_RESULTS     |           | PHYSR  | ESLT | •       |          |  | C,79 |
| 590)   | PHYSICAL_EXAM_TYPE        |           | PHYEX  | TYP  |         |          |  | N, 2 |
| 591)   | PHYSICAL_MED_SURVEILLANCE | E_IND     | PHYSM  | EDSU | RVIND   |          |  | L    |
| 592)   | PHYSICAL_MEMBER_DIVISION  | ī         | PHYSM  | BRDI | .v      |          |  | C,15 |
| 593)   | PHYSICAL_MEMBER_NAME      |           | PHYSM  | BRNA | M       |          |  | C,45 |
| 594)   | PHYSICAL_MEMBER_WORKCENT  | ER        | PHYMB  | RWKC | TR      |          |  | C,15 |
| 595)   | PHYSICAL_MEMBER_WORKCENT  | ER_PHONE  | PHYMB  | RPHC | N       |          |  | N,5  |
| 596)   | PHYSICAL_PHYSICIAN_NAME   |           | PHYSN  | AME  |         |          |  | C,45 |
| 597)   | PHYSICAL_PURPOSE_FOR_EXA  | AM.       | PHYPU  | RPOS | SE      |          |  | C,50 |
| 598)   | PHYSICAL_QUALIFICATION_1  | INDICATOR | PHYSQ  | UAL  |         |          |  | L    |
| 599)   | PHYSICAL_SUPERVISOR_DEPA  | ARIMENT   | PHYSU  | PVRD | EPT     |          |  | C,15 |
| 600)   | PHYSICAL_SUPERVISOR_LOCA  | ATION     | PHYSU  | PVRI | oc      |          |  | C,25 |
| 601)   | PHYSICAL_SUPERVISOR_NAME  | E         | PHYSU  | PVRN | MAI     |          |  | C,45 |
| 602)   | PHYSICAL_SUPERVISOR_PHON  | NE.       | PHYSU  | PVRP | HON     |          |  | N, 4 |
| 603)   | PPD_COMMENTS              |           | PPD C  | MNT  |         |          |  | C,50 |
| 604)   | PPD_CONVERTER_INDICATOR   |           | PPD C  | VNO  | IND     |          |  | L    |
| 605)   | PPD_LAST_EVAL_DATE        |           | PPD L  | AST  | DATE    |          |  | D    |
| 606)   | PPD_NEXT_EVAL_DATE        |           | PPD N  | EXT  | DATE    |          |  | D    |
| 6071   | PPD_REQUIRED_FOLLOW_UP_C  | COMPLETE  | PPD R  | EQD  | FOLLOW  | UP COMPL |  | L    |
| 608)   | PPD_SCREEN_DATE           |           | PPD S  | CRN  | DATE    |          |  | D    |
| 609)   | PPD_SCREEN_DUE_DATE       |           | PPD S  | CRN  | DUE DAT | 'E       |  | D    |
| 610)   | PRESCRIPTION_DRUG_MISUSE  | E         | PRESC  | RIP  | DRUG MI | SUSE     |  | L    |
|  |                           |           |        |      |         |          |  |      |

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| 611)            | PRP_ASSIGNMENT_DATE     | PRP                              | ASSIGNMENT DATE    | D        |
| 612)            | PRP_ASSIGNMENT_STATUS   | PRP                              | ASSIGN STATUS      | C,8      |
| 613)            | PRP_BADGE_NUMBER        | PRP                              | BADGE              | N, 10    |
| 614)            | PRP_BILLET_NAME         | PRP                              | BILLET NAME        | C,25     |
| 615)            | PRP_BILLET_TYPE         | PRP                              | BILLET TYPE        | C,10     |
| 616)            | PRP_CERTIFICATION_DATE  | PRP                              | CERT DATE          | D        |
| 617)            | PRP_CERTIFYING_AUTHORIT | Y_TITLE PRP                      | CERT AUTH TITLE    | C,15     |
| 618)            | PRP_CERTIFYING_OFFICER_ | AUTHORITY PRP                    | CERT OFF AUTH      | C,15     |
| 619)            | PRP_CERTIFYING_OFFICER_ | NAME PRP                         | CERT OFF NAME      | C,30     |
| 620)            | PRP_CERTIFYING_OFFICER_ | RANK PRP                         | CERT OFF RANK      | C,10     |
| 621)            | PRP_CERTIFYING_OFFICER_ | TITLE PRP                        | CERT OFF TITLE     | C,20     |
| 622)            | PRP_CERTIFYING_OFF_DESI | G_DATE PRP                       | CERT OFF DESIG DAT | e D      |
| 623)            | PRP_CERT_AUTHORITY_NAME | PRP                              | CERT AUTH NAME     | C,25     |
| 624)            | PRP_CERT_AUTHORITY_RANK | PRP                              | CERT AUTH RANK     | C,10     |
| 625)            | PRP_CERT_AUTH_ORGANIZAT | ION PRP                          | CERT AUTH ORG      | C,25     |
| 626)            | PRP_CERT_AUTH_SIGNATURE | _IND PRP                         | CERT AUTH SIG      | r        |
| 627)            | PRP_CONTROLLED_BILLETS_ | REQUIRED PRP                     | CONT BILLETS REQD  | N, 3     |
| 628)            | PRP_CRITICAL_BILLETS_RE | QUIRED PRP                       | CRIT BILLET REQD   | N, 3     |
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| 632)            | PRP_MED_SCREEN_AUTHORIT | TY_NAME: PRP                     | MED SCRN AUTH NAME | C, 25    |
| 633)            | PRP_MED_SCRN_AUTHORITY_ | RANK PRP                         | MED SCRN AUTH RANK | C,15     |
| 634)            | PRP_MED_SCRN_AUTHORITY_ | TITLE PRP                        | MED SCRN AUTH TITI | LE C,15  |
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| 637)            | PRP_MEMBER_DEPARTMENT   | PRP                              | MBRDEPT            | C,15     |
| 638)            | PRP_MEMBER_DIVISION     | PRP                              | MBRDIV             | C,15     |

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| •               | REPOSSESSIONS           |                          | REPOSSESS | ions           | L     |       |
| 754)            | REPRODUCTION_AUTHORITY  | _DATE                    | REPRO AUT | H DATE         | ם     |       |
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| 764)            | REPRODUCTION_REQUEST_A  | PPROVAL                  | REPRO REC | APPROVAL       | L     | ,     |
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| 773)            | RESPIRATOR_TYPE_DESCRI  | PTION                    | RESPTYDE  | ;              | c     | 75    |
| 774)            | RESPIRATOR_USER_CONDIT  | TON_CODE                 | RESPUSRCO | DND            | N     | 1,2   |
| 775)            | RETURN_DATE             |                          | RTNDAT    |                | D     | )     |
| 776)            | ROOMMATE_CURRENT_CITY   |                          | ROOMMATE  | CITY           | c     | 2, 25 |
| 777)            | ROOMMATE_CURRENT_PHONE  | }                        | ROOMMATE  | PHONE          | c     | ,12   |
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| 782)            | SAFETY_MEMBER_DIVISION    | s  | AFMBRDIV         |            | 1    | C,25  |
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| 787)            | SAFETY_OFFICER_NAME       | s  | afoffnam         | 1          |      | C,50  |
| 788)            | SAFETY_OFFICER_PHONE      | S  | AFPHON           |            |      | N,5   |
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| 819)            | SECURITY_MEMBER_SUB-FUNCTION   | SECMBRSUBFUNCTION               | C,25     |
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| 825)            | SEC_CONTAINER_COMBINATION_DATE | SEC CONT COMB DATE              | D        |
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| 840)            | SICKCALL_BLOOD_PRESSURE | _SYSTOLC                 | SICKBPSYS                 |      | N, 3             |
| 841)            | SICKCALL_BLOOD_PRESS_DI | ASTOLIC                  | SICKBPDIAS                |      | N, 3             |
| 842)            | SICKCALL_BODY_TEMP      |                          | SICKBODTMP                |      | N <sub>c</sub> 5 |
| 843)            | SICKCALL_DATE           |                          | SICKDAT                   |      | D                |
|                 | SICKCALL_DISPOSITION_CO | MMENTS                   | SICKDISPCOM               |      | C,12             |
| 0<br>845)       | SICKCALL_DISPOSITION_TY | PE                       | SICKDISTYP                |      | N, 1             |
| 846)            | SICKCALL_ESTIMATED_DAYS | 3                        | SICKESTDAY                |      | и, 3             |
| 847)            | SICKCALL_FOLLOW_UP_DATE | 1                        | SICKFOLLOWD               |      | D                |
| 848)            | SICKCALL_FOLLOW_UP_TIME | :                        | SICKFOLLOWT               |      | T                |
| 849)            | SICKCALL_MED_FACILITY_I | OCATION                  | SICKFACLOC                |      | C,50             |
| 850)            | SICKCALL_PULSE_RATE     |                          | SICKPULSRT                |      | и, 3             |
| 851)            | SICKCALL_RESPIRATION    |                          | SICKRESPRT                |      | м, 3             |
| 852)            | SICKCALL_START_TIME     |                          | SICKSTART                 |      | T                |
| 853)            | SICKCALL_TREATMENT_COME | LETE_IND                 | SICKTRMTCOMPIND           |      | L                |
| 854)            | SICKCALL_VIA_TRANSPORTA | TION                     | SICKVIATRA                |      | C,20             |
| 855)            | SIGHT_HAZARD_TYPE       |                          | SIHAZTYPE                 |      | C,50             |
| 856)            | SIGHT_SPACE_LOCATION    |                          | SISURVLO                  |      | C, 25            |
|                 | SIGHT_SURVEY_COMMENTS   |                          | SISURVCT                  |      | C,12             |
| 0<br>858)       | SIGHT_SURVEY_DATE       |                          | SISURVDT                  |      | D                |
| 859)            | SIGHT_SURVEY_DUE_DATE   |                          | SISURVDU                  |      | D                |
| 860)            | TAG_ACTION_TYPE_AUTHORI | TY_NAME                  | TAGACTAUTH                |      | C,50             |
| 861)            | TAG_ACTION_TYPE_CODE    |                          | TAGACTTYP                 |      | C,1              |
| 862)            | TAG_ACTION_TY?E_DATE    |                          | TAGACTDT                  |      | D                |

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|-----------------|--------------------------|--|--------------|--------------|------|-------|
| 863)            | TAG_DEPARTMENT_NAME      | AT                                       | AGDE         | PT           |      | C,25  |
| 864)            | TAG_DEPARTMENT_SEQUENCE_ | NUMBER TA                                | AGDE         | PNUM         |      | N, 10 |
| 865)            | TAG_DIVISION_NAME        | TA                                       | AGDI         | v            |      | C,25  |
| 866)            | TAG_EQUIPMENT_NAME       | TA                                       | age Q1       | UIPNAM       |      | C,50  |
| 867)            | TAG_FIRST_PERSON_NAME    | TA                                       | <b>A</b> GFI | RNAM         |      | C,50  |
| 868)            | TAG_NUMBER_OF_TAGS       | TA                                       | AGNU         | MTAG         |      | N, 2  |
| 869)            | TAG_SECOND_PERSON_NAME   | TA                                       | AGSE         | CNAM         |      | C,50  |
| 870)            | TAG_SYSTEM_EFFECTED      | TA                                       | AGSY         | s            |      | C,75  |
| 871)            | TAG_TYPE_CODE            | TA                                       | AGTY.        | ₽            |      | C,1   |
| 872)<br>0       | TAG_TYPE_HAZARD          | TA                                       | AGHA         | z            |      | C,12  |
| 873)            | TAG_TYPE_INSTRUCTIONS    | TA                                       | AGIN         | ST           |      | C,12  |
| 0<br>874)       | TAX_PURPOSE_LIEN         | TA                                       | AX L         | EIN          |      | L     |
| 875)            | THREAT_NAME              | TH                                       | HREA         | T NAME       |      | C, 45 |
| 876)            | THREAT_RISK              | TH                                       | HREA         | T RISK       |      | C,1   |
| 877)            | UNDER_THE_INFLUENCE_CODE | ง บง                                     | ND I         | NF           |      | N, 1  |
| 878)            | UNPAID_JUDGEMENTS        | UN                                       | NPAI         | D JUDGEMENTS |      | L     |
| 879)            | VISITOR_ARRIVAL_DATE     | VI                                       | IS A         | RR DATE      |      | D     |
| 880)            | VISITOR_ARRIVAL_TIME     | rv.                                      | IS A         | RR TIME      |      | T     |
| 881)            | VISITOR_BADGE_NUMBER     | VI                                       | IS B         | ADGE         |      | C, 4  |
| 882)            | VISITOR_CONTROL_SUPERVIS | SOR_LOCAT VI                             | issu         | PVRLOCA      |      | C,25  |
| 883)            | VISITOR_CONTROL_SUPERVIS | SOR_NAME VI                              | ISSU         | PVRNAM       |      | C,50  |
| 884)            | VISITOR_CONTROL_SUPERVIS | OR_PHONE VI                              | ISSU         | PVRPHON      |      | N, 5  |
| 885)            | VISITOR_DEPARTURE_TIME   | tv                                       | IS D         | EP TIME      |      | T     |
| 886)            | VISITOR_DESTINATION      | v  | IS D         | EST          |      | C,20  |
| 887)            | VISITOR_ESCORT_NAME      | v  | IS E         | SCORT        |      | C,25  |
| 888)            | VISITOR_NAME             | v  | IS N         | AME          |      | C, 45 |
| 889)            | VISITOR_ORGANIZATION     | V  | is o         | RG           |      | C,25  |
| 890)            | WATER_BACTERIA_TEST_RESU | JLTS W                                   | TRBA         | С            |      | С,3   |

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|-----------------|-------------------------|---|----------|
| 891)            | WATER_TEST_COMMENT      | WTRCMNT                                     | C,79     |
| 892)            | WATER_TEST_DATE         | WTRTESTDAT                                  | D        |
| 893)            | WATER_TEST_LOCATION     | WTRLOC                                      | C,50     |
| 894)            | WATER_TEST_SEQUENCE     | WTRSAMP                                     | N, 2     |
| 895)            | WATER_TEST_SEQUENCE_NUM | iber wtrsampnbr                             | N, 2     |
| 896)            | WATER_TEST_SOURCE       | WTRSRC                                      | C,25     |
| 897)            | WQSB_BILLET_NUMBER      | WQSBBILNUM                                  | N, 12    |
| 898)            | WQSB_BILL_NAME          | WQSBBILNAM                                  | C,25     |
| 899)            | WQSB_BILL_STATION_ASSIG | NED WQSBBILLSTA                             | C,25     |
| 900)            | WQSB_BILL_STATION_PROVI | DE WQSBBILLSTAPRO                           | C,25     |
| 901)            | WQSB_CONDITION_I        | WQSBCON1                                    | C,25     |
| 902)            | WQSB_CONDITION_TYPE_COL | E WQSBCONDTYP                               | N, 1     |
| 903)            | WQSB_DIVISION           | WQSBDIV                                     | C,25     |
| 904)            | WQSB_LAST_UPDATED_BY_NA | ME WQSBUPNAM                                | C,45     |
| 905)            | WQSB_LAST_UPDATED_DATE  | MOSBDI                                      | Д        |
| 906)            | WQSB_NUMBER_OF_BILLS    | WQSBNUMBILL                                 | N, 2     |
| 907)            | WQSB_RATE_ACTUAL        | WQSBRATACT                                  | N, 2     |
| 908)            | WQSB_RATE_ALLOWANCE     | WQSBRATALW                                  | N, 2     |
| 909)            | WQSB_RATE_COMPLIMENT    | WQSBRATCMP                                  | N, 2     |
| 910)            | WQSB_REMARKS            | WQSBRMKS                                    | C,25     |
| 911)            | WQSB_WATCH_TYPE_CODE    | WQSBWATCHTYP                                | C,6      |
| 912)            | WSQSB_REMARKS           | WQSBRMKS                                    | C,25     |

<sup>159</sup> Objects in the 'DMAIN' Dictionary. 912 Attributes in the 'DMAIN' Dictionary.

# APPENDIX M

# DICTIONARY OF ABBREVIATIONS

This appendix contains a Dictionary of Abbreviations and acronyms used in the body of the thesis and the diagram reports.

#### APPENDIX M

#### DICTIONARY OF ABBREVIATIONS

ABBREVIATION DEFINITION

ABO AGGLUTININ BLOOD GROUPING SYSTEM

ADMIN ADMINISTRATIVE

ADP AUTOMATED DATA PROCESSING

AUTH AUTHORITY

BIO BIOLOGICAL

CAL/RECAL CALIBRATION/RECALIBRATION

CERT CERTIFICATION

CLASS CLASSIFIED/CLASSIFICATION

CLASSMAT CLASSIFIED MATERIAL

CMNT COMMENT

CONFIDENT CONFIDENTIAL

CONT CONTINGENCY

CSMP CONSOLIDATED SHIPS MAINTENANCE

PACKAGE

DAPA DRUG AND ALCOHOL PROGRAM ADVISOR

DEPT DEPARTMENT

DESIG DESIGNATION

DURATION DURATION

ELEC ELECTRICAL

EQUIP EQUIPMENT

EVAL EVALUATION

EXP EXPOSURE

FOLLWUP FOLLOW UP

HAZMAT HAZARDOUS MATERIAL

ID IDENTIFICATION

ABBREVIATION DEFINITION

IND INDICATOR

INFO INFORMATION

INV INVENTORY

MBR MEMBER

MED MEDICAL

MIN MINIMUM

NO NUMBER

NONDISC NONDISCLOSURE

NSN NATIONAL STOCK NUMBER

NUM NUMBER

OFF OFFICER

OPS OPERATIONS

ORIG ORIGINATOR

PHEL PERSONNEL HEAT EXPOSURE LIMIT

PHOTO PHOTOGRAPH/PHOTOGRAPHY

PPD TUBERCULIN PURIFIED

PRESS PRESSURE

PREV PREVIOUS

PRP PERSONNEL RELIABILITY PROGRAM

QUAL QUALIFICATION

RAD RADIATION

REFER REFERRAL

RH RHESUS HEMOANTIBODY BLOOD GROUPING

SYSTEM

SCRN SCREEN

SEC SECURITY

SSN SOCIAL SECURITY NUMBER

<u>ABBREVIATION</u> <u>DEFINITION</u>

SURV SURVEY

SURVEIL SURVEILLANCE

SYSTOLC SYSTOLIC

TAD TEMPORARY ASSIGNED DUTY

TEMP TEMPERATURE/TEMPORARY

TLD THERMO LUMINESCENT DEVICE

TYP

UIC UNIT IDENTIFICATION CODE

UNCLASS UNCLASSIFIED

URIN URINE

VEH VEHICLE

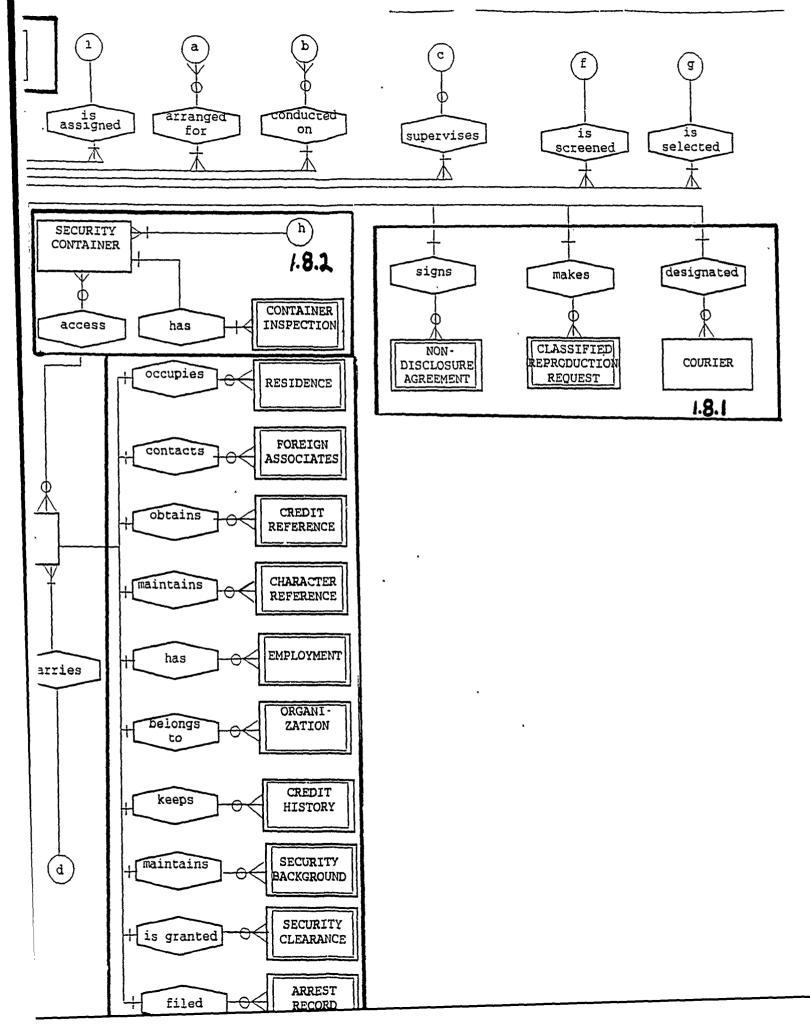
WPN WEAPON

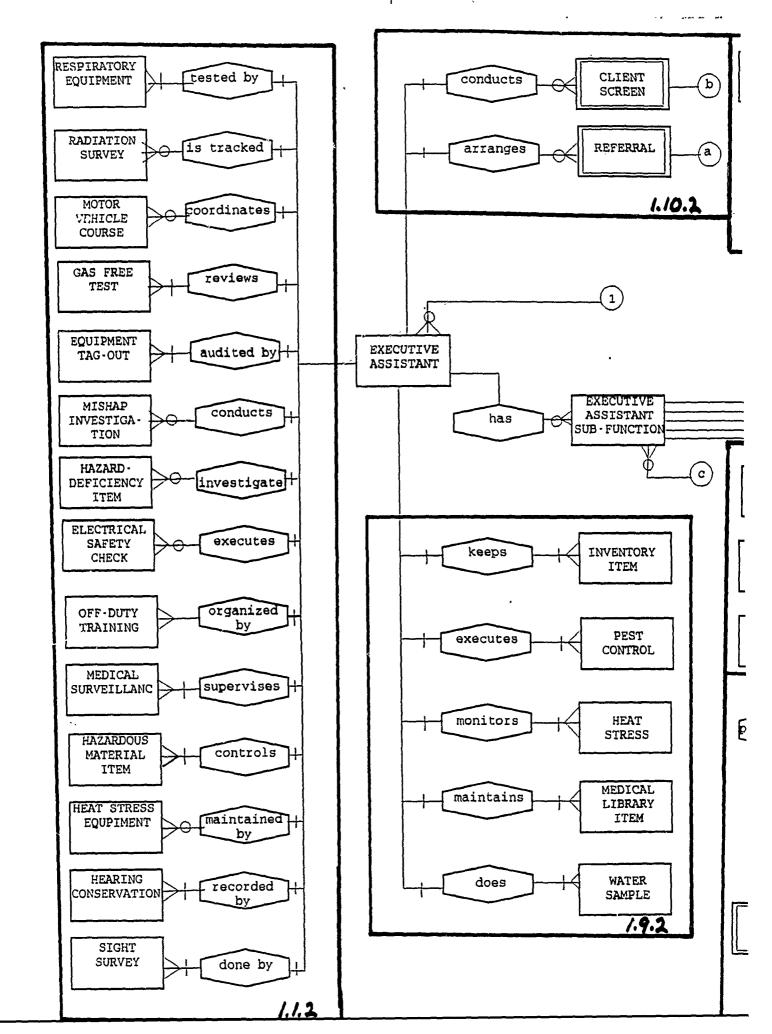
WQSB WATCH QUARTER AND STATION BILL

### APPENDIX N

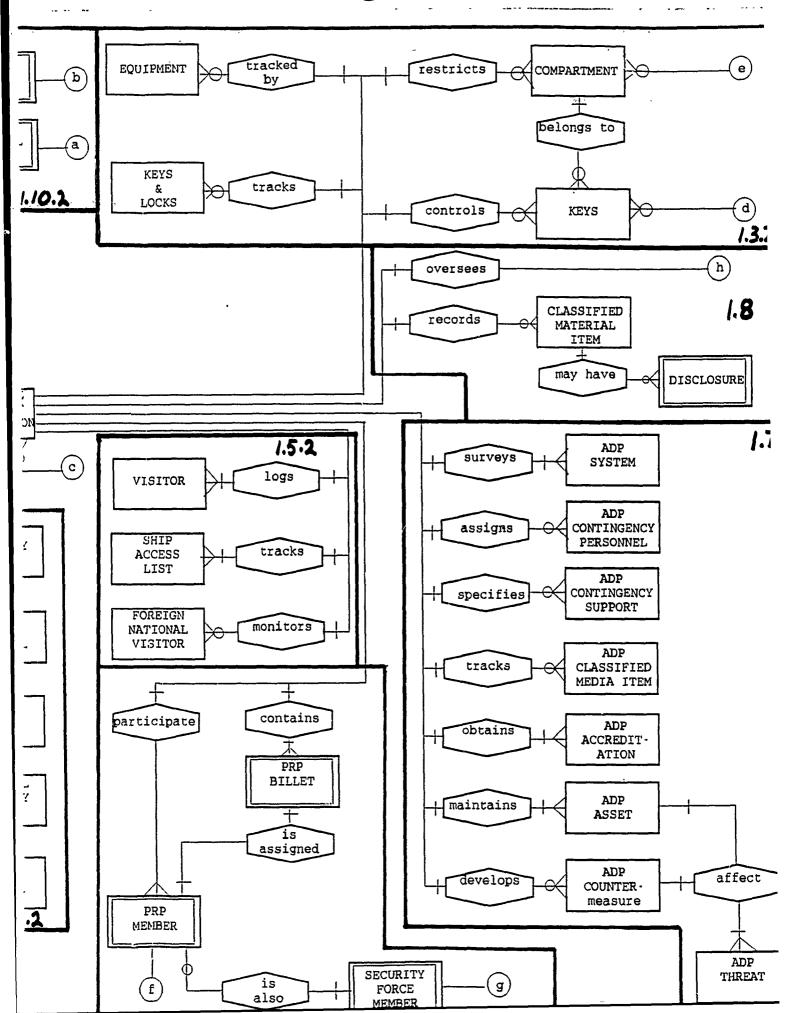
## INTEGRATED VIEW DIAGRAM

This appendix contains the integrated view of the entity relationship diagrams for each function as discussed in Chapter V.





(1)



# APPENDIX O

## ENTITY CLUSTERING DIAGRAMS

This appendix contains the entity clustering diagrams for each function as discussed in Chapter V.

FIGURE 1.1 : SAFETY

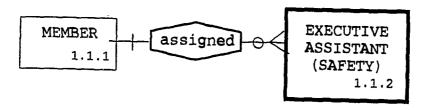


Figure 1.2 : SECURITY

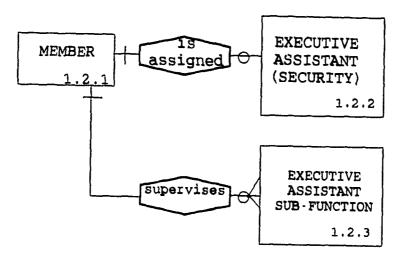


Figure 1.3 : PHYSICAL SECURITY

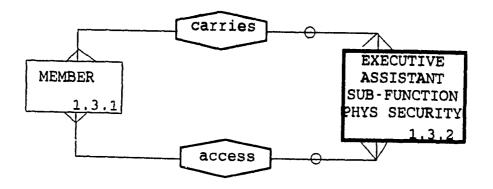
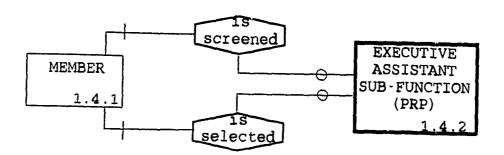


Figure 1.4 : PERSONNEL RELIABILITY PROGRAM (PRP)



## FIGURE 1.5 : VISITOR CONTROL

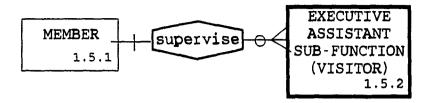


Figure 1.6 : CLEARANCE/ACCESS

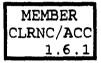


Figure 1.7 : ADP SECURITY

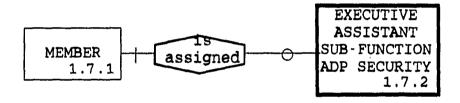
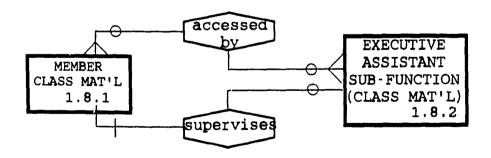


Figure 1.8 : CLASSIFIED MATERIAL



3

Figure 1.9 : MEDICAL

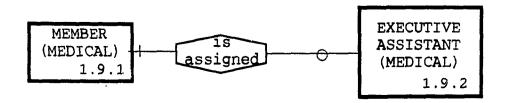


FIGURE 1.10 : DAPA

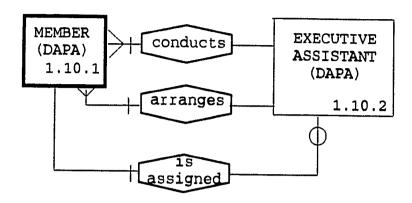


Figure 1.11 : WQSB

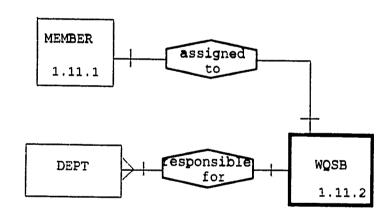


Figure 2.11 : WQSB



FIGURE 3.1 : ADMINISTRATION

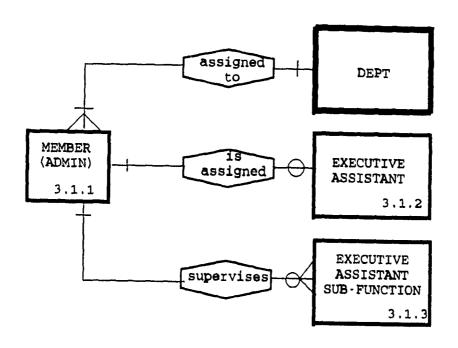
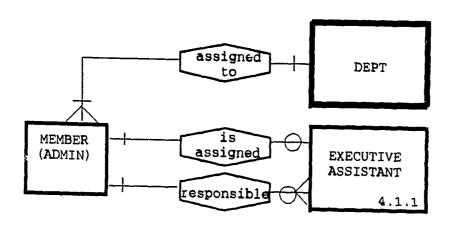


FIGURE 4.1 : ADMINISTRATION



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